液晶电视

底板：U56C

型号: LA19D400E1

LA22D400E1R

LA26D400E1

LA32D400E1

维 修 手 册

薄膜液晶电视

LA22D400E1R

目录

目录

1. Precautions

1-1. Safety Precautions

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

1-1-1. Warnings

1. For continued safety, do not attempt to modify the circuit board.
2. Disconnect the AC power and DC power jack before servicing.

1-1-2. Servicing the LCD TV

1. When servicing the LCD TV, Disconnect the AC line cord from the AC outlet.
2. It is essential that service technicians have an accurate voltage meter available at all times.
   Check the calibration of this meter periodically.

1-1-3. Fire and Shock Hazard

Before returning the LCD TV to the user, perform the following safety checks:

1. Inspect each lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the LCD TV.
2. Inspect all protective devices such as nonmetallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistorcapacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check (Figure 1-1):
   WARNING : Do not use an isolation transformer during this test.
   Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

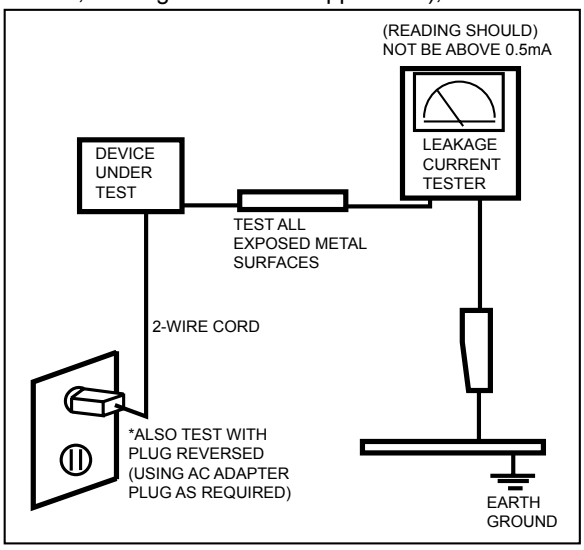


Figure 1-1. Leakage Current Test Circuit

4. With the unit completely reassembled, plug the AC line cord directly into a 120V AC outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: metal cabinets, screwheads and control shafts.
   The current measured should not exceed 0.5 milliamp.
   Reverse the power-plug prongs in the AC outlet and repeat the test.

1-1-4. Product Safety Notices

Some electrical and mechanical parts have special safetyrelated characteristics which are often not evident from visual inspection. The protection they give may not be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by ⚠ on schematics and parts lists. A substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

1-2. Servicing Precautions

WARNING: An electrolytic capacitor installed with the wrong polarity might explode.
Caution: Before servicing units covered by this service manual, read and follow the Safety Precautions section of this manual.
Note: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions.

1-2-1 General Servicing Precautions

1. Always unplug the unit's AC power cord from the AC power source and disconnect the DC Power Jack before attempting to:
   (a) remove or reinstall any component or assembly, (b) disconnect PCB plugs or connectors, (c) connect a test component in parallel with an electrolytic capacitor.
2. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
3. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the area around the serviced part has not been damaged.
4. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
5. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500 V) to theblades of the AC plug.
   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
6. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3. Electrostatically Sensitive Devices (ESD) Precautions

Some semiconductor (solid state) devices can be easily damaged by static electricity. Such components are commonly called Electrostatically Sensitive Devices (ESD). Examples of typical ESD are integrated circuits and some field-effect transistors. The following techniques will reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. To avoid a shock hazard, be sure to remove the wrist strap before applying power to the LCD TV.
2. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of an electrostatic charge.
3. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESDs.
4. Use only a grounded-tip soldering iron to solder or desolder ESDs.
5. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
7. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   Caution: Be sure no power is applied to the chassis or circuit and observe all other safety precautions.
8. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

1-4. Installation Precautions

1. For safety reasons, more than a people are required for carrying the product.
2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.
3. Do not place the product in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.
4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.
5. Make sure to turn the power off and unplug the power cord from the outlet before repositioning the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.
6. Keep the antenna far away from any high-voltage cables and install it firmly. Contact with the highvoltage cable or the antenna falling over may cause fire or electric shock.
7. When installing the product, leave enough space (0.4m) between the product and the wall for ventilation purposes. A rise in temperature within the product may cause fire.

2. Product specifications

2-1. Feature & Specifications

Model	LA19D400E1
Feature	
▶ ATV, 1-HDMI, 1-Component, 1-A/V, D-SUB, 1-USB2.0 ▶ Brightness : 250cd/m^2 ▶ High Contrast Ratio : 1,000:1 ▶ Response Time : 5ms	

Specifications		
Item	**Description**	
LCD Panel	19inch HD	
Scanning Frequency	Horizontal : 37.13 kHz ~ 59.25 kHz (Automatic) Vertical : 50 Hz ~ 75 Hz (Automatic)	
Display Colors	16.7M color	
Maximum resolution	Horizontal : 1366 Pixels Vertical : 768 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	89 MHz (Typ 67.1 MHz)	
Active Display Horizontal/Vertical	16.13 x 9.07 inches (409.8 (H) x 230.4 (V) mm)	
AC power voltage & Frequency	AC 110V ~ 120V, 60 Hz	
Power Consumption	Under 35W (Under 0.3W, Stand by)	
Set Dimensions (W x D x H)	18.2 x 6.3 x 13.7 nchs (461.3 x 160.7 x 346.8 mm)_with stand	
	18.2 x 2.4 x 11.8 inchs (461.3 x 61.2 x 299.7 mm)_without stand	
Set Weight	8.8 lbs (4.0kg)_with stand	
	8.4 lbs (3.8kg)_without stand	
Stand Dimensions (W x D x H)	12.0 x 6.3 x 2.9 inchs (303.7 x 160.7 x 72.6 mm)	
Stand Weight	0.5 lbs (0.21kg)	
TV System	Tunning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	PAL, SECAM, NT4.43
	Sound	BG, DK, L/L', NICAM, MPEG1, DD, DD+, HE-AAC
Environmental Considerations	Operating Temperature : 50˚F ~ 104˚F (10˚C ~ 40˚C) Operating Humidity : 10% ~ 80%, non-condensing Storage temperature : -13˚F ~ 113˚F (-25˚C ~ 45˚C) Storage Humidity : 5% ~ 95%, non-condensing	
Audio Spec.	- MAX Internal speaker Out : Right => 3W, Left => 3W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz A/V : 80 Hz ~ 20 kHz	
Note: Dolby Digital+, Game Mode, Film Mode, Energy Saving, Anynet+		

Model	LA22D400E1R
Feature	
▶ ATV, 1-HDMI, 1-Component, 1-A/V, D-SUB, 1-USB2.0 ▶ Brightness : 300cd/m^2 ▶ High Contrast Ratio : 1,000:1 ▶ Response Time : 5ms	

Specifications		
Item	**Description**	
LCD Panel	22inch FHD	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 50 Hz ~ 75 Hz (Automatic)	
Display Colors	16.7M color	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	97.98 MHz (Typ 74.25 MHz)	
Active Display Horizontal/Vertical	18.77 x 10.56 inches (476.64 (H) x 268.11 (V) mm)	
AC power voltage & Frequency	AC 110V ~ 120V, 60 Hz	
Power Consumption	Under 60W (Under 1W, Stand by)	
Set Dimensions (W x D x H)	21.0 x 6.8 x 15.4 nchs (533.2x171.6x390.0 mm)_with stand	
	21.0 x 6.8 x 15.4 nchs (533.2x171.6x390.0 mm)_with stand	
Set Weight	11.2 lbs (5.1kg)_with stand	
	10.8 lbs (4.9kg)_without stand	
Stand Dimensions (W x D x H)	13.8 x 6.8 x 3.0 inchs (351.7 x 171.6 x 75.3 mm)	
Stand Weight	0.5 lbs (0.25kg)	
TV System	Tunning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	PAL, SECAM, NT4.43
	Sound	BG, DK, L/L', NICAM, MPEG1, DD, DD+, HE-AAC
Environmental Considerations	Operating Temperature : 50˚F ~ 104˚F (10˚C ~ 40˚C) Operating Humidity : 10% ~ 80%, non-condensing Storage temperature : -13˚F ~ 113˚F (-25˚C ~ 45˚C) Storage Humidity : 5% ~ 95%, non-condensing	
Audio Spec.	- MAX Internal speaker Out : Right => 3W, Left => 3W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz A/V : 80 Hz ~ 20 kHz	
Note: Dolby Digital+, Game Mode, Film Mode, Energy Saving, Anynet+		

Model	LA26D400E1
Feature	
▶ ATV, 2-HDMI, 2-Component, 2-A/V, D-SUB, 1-USB2.0 ▶ Brightness : 450cd/m^2 ▶ High Contrast Ratio : 3,000:1 ▶ Response Time : 8.5ms	

Specifications		
Item	**Description**	
LCD Panel	26inch HD	
Scanning Frequency	Horizontal : 43 kHz ~ 53 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M color	
Maximum resolution	Horizontal : 1366 Pixels Vertical : 768 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	82 MHz (Typ 76 MHz)	
Active Display Horizontal/Vertical	22.67 x 12.74 inches (575.769 (H) x 323.712 (V) mm)	
AC power voltage & Frequency	AC 110V ~ 120V, 60 Hz	
Power Consumption	Under 85W (Under 1W, Stand by)	
Set Dimensions (W x D x H)	25.5 x 8.7 x 19.3 inchs (646.5x222.1x489.5 mm)_with stand	
	25.5 x 3.5 x 16.6 inchs (646.5x78.8x421.3 mm)_without stand	
Set Weight	14.6 lbs (6.6kg)_with stand	
	13.7 lbs (6.2kg)_without stand	
Stand Dimensions (W x D x H)	17.2 x 8.7 x 3.2 inchs (437.1 x 222.1 x 82.0 mm)	
Stand Weight	1.0 lbs (0.47kg)	
TV System	Tunning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	PAL, SECAM, NT4.43
	Sound	BG, DK, L/L', NICAM, MPEG1, DD, DD+, HE-AAC
Environmental Considerations	Operating Temperature : 50˚F ~ 104˚F (10˚C ~ 40˚C) Operating Humidity : 10% ~ 80%, non-condensing Storage temperature : -13˚F ~ 113˚F (-25˚C ~ 45˚C) Storage Humidity : 5% ~ 95%, non-condensing	
Audio Spec.	- MAX Internal speaker Out : Right => 5W, Left => 5W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz A/V : 80 Hz ~ 20 kHz	
Note: Dolby Digital$^+$, Game Mode, Film Mode, Energy Saving, Anynet$^+$		

Model	LA32D400E1
Feature	
▶ ATV, 2-HDMI, 2-Component, 2-A/V, D-SUB, 1-USB2.0 ▶ Brightness : 450cd/m^2 ▶ High Contrast Ratio : 3,500:1 ▶ Response Time : 8.5ms	

Specifications		
Item	**Description**	
LCD Panel	32inch HD	
Scanning Frequency	Horizontal : 43 kHz ~ 53 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M color	
Maximum resolution	Horizontal : 1366 Pixels Vertical : 768 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	82 MHz (Typ 76 MHz)	
Active Display Horizontal/Vertical	27.47 x 15.44 inches (697.685 (H) x 392.256 (V) mm)	
AC power voltage & Frequency	AC 110V ~ 120V, 60 Hz	
Power Consumption	Under 110W (Under 1W, Stand by)	
Set Dimensions (W x D x H)	30.9 x 9.9 x 22.3 inchs (784.4x251.7x565.6 mm)_with stand	
	30.9 x 3.1 x 19.8 inchs (784.4x78.8x502.8 mm)_without stand	
Set Weight	23.6 lbs (10.7kg)_with stand	
	18.7 lbs (8.5kg)_without stand	
Stand Dimensions (W x D x H)	19.8 x 9.9 x 7.1 inchs (503.7 x 251.7 x 181.6 mm)	
Stand Weight	5.0 lbs (2.25kg)	
TV System	Tunning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	PAL, SECAM, NT4.43
	Sound	BG, DK, L/L', NICAM, MPEG1, DD, DD+, HE-AAC
Environmental Considerations	Operating Temperature : 50˚F ~ 104˚F (10˚C ~ 40˚C) Operating Humidity : 10% ~ 80%, non-condensing Storage temperature : -13˚F ~ 113˚F (-25˚C ~ 45˚C) Storage Humidity : 5% ~ 95%, non-condensing	
Audio Spec.	- MAX Internal speaker Out : Right => 10W, Left => 10W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz A/V : 80 Hz ~ 20 kHz	
Note: Dolby Digital$^+$, Game Mode, Film Mode, Energy Saving, Anynet$^+$		

2-2. Detail Factory Option

※ If you replace the main board with new one, please change the factory option as well.
The options you must change are "Type".

• LD400

Model Name			LA19D400E1	LA22D400E1R	LA26D400E1	LA32D400E1
Panel		Vendor	CPT	CMI	CMI	CMI
		CODE	BN07-00941A	BN07-00888A	BN07-00950A	BN07-00951B
		SPEC	CLAA185WA03-A	M215H1-L03	V260B3-L08	V315B5-L13
SMPS		Vendor	PowerNet	SEM	DYREL	SEM
		CODE	BN44-00436A	BN44-00437A	BN44-00438C	BN44-00438A
		SPEC	I19HD_BPN	I22HD_BSM	I2632F1_BDY	I2632F1_BSM
Byte	**Item**	Adjustment Range	ASIA Ready			
1	Factory Reset	-				
2	Type	19A6TH0C/22P6TH0C/22I6TH0C/26P6AH0C/32P6AH0C/32A6AH0C/19I6TH0C/32D6AH0C/32A6AH1C/32L6AH0C	19I6TH0C	22P6TF0C	26P6AH0C	32P6AH0C
3	Model	LD400/LD400_19/LD400_FHD	LD400	LD400	LD400	LD400
4	TUNER	XUGUANG/SEMCO	XUGUANG	XUGUANG	XUGUANG	XUGUANG
5	Ch Table	SUWON/SESK/SEH/TTSEC/SEIN/SDMA/TSED/SAVINA/SIEL_C/SIEL_N/TSE	-	-	-	-
6	Local set	East Aisa/Africa/Vietnam/China/India/Iran/Israel/Middle Asia	East Aisa	East Aisa	East Aisa	East Aisa
7	P&P Language	English/Thai/China/Vietnam/Indonisia	English	English	English	English

• LD400 (India, Vietnam)

Model Name			LA19D400E1	LA22D400E1R	LA26D400E1	LA32D400E1
Panel		Vendor	CPT	CMI	CMI	CMI
		CODE	BN07-00941A	BN07-00888A	BN07-00950A	BN07-00951B
		SPEC	CLAA185WA03-A	M215H1-L03	V260B3-L08	V315B5-L13
SMPS		Vendor	PowerNet	SEM	SEM	SEM
		CODE	BN44-00436B	BN44-00437C	BN44-00438E	BN44-00438E
		SPEC	II19HD_BPN	HD_BSM	II2632F1_BSM	II2632F1_BSM
Byte	**Item**	Adjustment Range	ASIA Ready			
1	Factory Reset	-				
2	Type	19A6TH0C/22P6TH0C/22I6TH0C/26P6AH0C/32P6AH0C/32A6AH0C/19I6TH0C/32D6AH0C/32A6AH1C/32L6AH0C	19I6TH0C	22P6TF0C	26P6AH0C	32P6AH0C
3	Model	LD400/LD400_19/LD400_FHD	LD400	LD400	LD400	LD400
4	TUNER	XUGUANG/SEMCO	XUGUANG	XUGUANG	XUGUANG	XUGUANG
5	Ch Table	SUWON/SESK/SEH/TTSEC/SEIN/SDMA/TSED/SAVINA/SIEL_C/SIEL_N/TSE	-	-	-	-
6	Local set	East Aisa/Africa/Vietnam/China/India/Iran/Israel/Middle Asia	India	India	India	India
7	P&P Language	English/Thai/China/Vietnam/Indonisia	English	English	English	English

2-3. Specification Comparison to Old Models

※ O : application, X : non-application

Model	D400 (LA**D400)		D400 (LA32D400)
Design			
Display Type	LCD TV		LCD TV
Built-in Tuner	O		O
Resolution	1366X768 (22" : 1920X1080)		1366X768
LCD Panel	TFT LCD Panel 60Hz		TFT LCD Panel 60Hz
Screen Size	19"/22"/26"/32"		32"
Picture ratio	16 : 9		16:9
Dimensions (W x H x D)	19"	18.2 x 6.3 x 13.7 inchs _with stand	30.9 x 22.0 x 9.7 inchs _with stand
	22"	21.0 x 6.8 x 15.4 inchs _with stand	
	26"	25.5 x 8.7 x 19.3 inchs _with stand	
	32"	30.9 x 9.9 x 22.3 inchs _with stand	
Weight	19"	8.8 lbs_with stand	21.16 lbs_with stand
	22"	11.2 lbs_with stand	
	26"	14.6 lbs_with stand	
	32"	23.6 lbs_with stand	
Dynamic Contrast Ratio	High Contrast		High Contrast
Picture Engine	No (DNIe : SEMS)		No (DNIe : SEMS)
Equalizer	O		O
Auto Volume Control	O		O
Sound System	SRS TheaterSound HD		SRS TruSound HD
Speaker Output	19"/22"	3W + 3W	5W + 5W
	26"	5W + 5W	
	32"	10W + 10W	
PIP	X		O
Double Window	X		X
TTX	X		X
Entertainment Mode	X		X
Game Mode	O		O
Energy Saving	O		O
Anynet+	X		X
Antenna	1(Air)		1(Air)

2-4. New Features explanation

2-4-1. Media_Play

■ Advanced Features

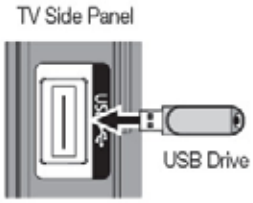
Media Play

Enjoy photos and/or music files saved on a USB Mass Storage Class (MSC) device.

MENU → **Input** → **Media Play (USB)** → ENTER

Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing photo and/or music files to the USB jack on the side of the TV.
3. When the **Input** selection screen is displayed, press the ▶ button to select **Media Play (USB)**, then press the ENTER button.



Using the Media Play Menu

Viewing a Photo (or Slide Show)

1. Press the MENU button. Press the ▲ or ▼ button to select Application, then press the ENTER button.
2. Press the ▲ or ▼ button to select **Media Play (USB)**, then press the ENTER button.
3. Press the ▲ or ▼ button to select the corresponding USB Memory Device, then press the ENTER button.
   - The Media Play menu differs depending on the USB Memory Device connected to TV.
   - Some devices may not be supported due to compatibility problems.
4. Press the ◀ or ▶ button to select an icon (**Photo, Music, Setup**), then press the ENTER button.

- It might not work properly with unlicensed multimedia files.
- Need-to-Know List before using **Media Play (USB)**
  - Only alphanumeric characters must be used as a folder name or file name (photo, music).
  - The file system only supports FAT16/32 (The NTFS file system is not supported) Certain types of USB Digital camera and audio devices may not be compatible with this TV.
  - Media Play (USB) only supports the USB Mass Storage Class device (MSC). MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives and Flash Card Readers (USB HDD and HUB and any usb device more than 16Giga byte are not supported.)
  - Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
  - Please connect directly to the USB port of your TV. If you are using a separate cable connection, there may be a USB Compatibility problem.

■ Advanced Features

- Only MP3 and JPEG file formats are supported.
- The Media Play (USB) mp3 format only supports music files with a high sampling frequency (32 kHz, 44.1 kHz, or 48 kHz).
- We recommend the sequential jpeg format.
- Do not disconnect the USB device while it is loading.
- MSC supports MP3 and JPEG files, and the PTP device supports JPEG files only.
- MTP (Media Transfer Protocol) is not supported.
- The playing duration of an mp3 file may be displayed as "00:00:00" if its playing time information is not found at the start of the file.
- The higher the resolution of the image, the longer it takes to display on the screen.
- The Photo or Music List displays up to 300 folders or files.
- Loading may take some time depending on the size of the file.
- MP3 files with DRM that have been downloaded from a non-free site cannot be played.
- Digital Rights Management (DRM) is a technology that supports the creation, distribution and management of of the content in an integrated and comprehensive way, including the protection of the rights and interests of the content providers, the prevention of the illegal copying of contents, as well as managing billings and settlements.
- If a USB extension cable is used, the USB device may not be recognized or the files on the device may not be read.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted or a file in the list is not played, connect the USB device to the PC, format the device and check the connection.
- If a file deleted from the PC is still found when Media Play is run, use the "Empty the Recycle Bin" function on the PC to permanently delete the file.

Photo

Viewing a Photo (or Slide Show)

1. Press the INFO button to display the option **Start Slide Show**, **Select All** or **Deselect All**.
2. Press the ▲ or ▼ button to select **Start Slide Show** then press the ENTER ↵ button.

   ✎ During the slide show, files are displayed in order from the currently shown file.

   ✎ MP3 files can be automatically played during the Slide Show if the Default **Background Music** is set to **On**. To enable this function, MP3 files and other photo files must be located in the same folder on the USB Memory Device.

✎ Press the INFO button during the slide show to set the following options **Slide Show Speed**, **Background Music**, **Background Music Setting**, **List**. Press the ▲ or ▼ button to select the option, then press the ENTER ↵ button.

– After setting the option press the ENTER ↵ button to make a change.

✎ Press the INFO button during the photo view to set the following options **Start Slide Show, Zoom, Rotate, List**. Press the ▲ or ▼ button to select the option, then press the ENTER ↵ button.

– After setting the option press the ENTER ↵ button to make a change.

Music

Using the MP3 List

	Folder icon
	Music list icon
	Move to the previous folder stage icon

✎ The selected file is displayed on the top with its playing time.

1. To select all files or a file, press the INFO button to display the **Music** menus.
   Press the ENTER button to select **Play, Play the selected file,Repeat Music, Select All** or **Deselect All**.
2. Press the ▲ or ▼ button to move to an icon, then press the ENTER button.
   Pressing the ENTER button over a musical note icon immediately plays the music file.
   Pressing the ENTER button over a folder icon shows the music files included in the folder.

■ **Play**: Select to play MP3 files.

✎ This menu only shows files with the MP3 file extension. Files with other file extensions are not displayed, even if they are saved on the same USB device.

✎ To adjust the music volume, press the **– VOL +** button on the remote control. To mute the sound, press the MUTE button on the remote control.

■ **Repeat Music (On / Off)**: Select to repeatedly play MP3 files in the current folder.

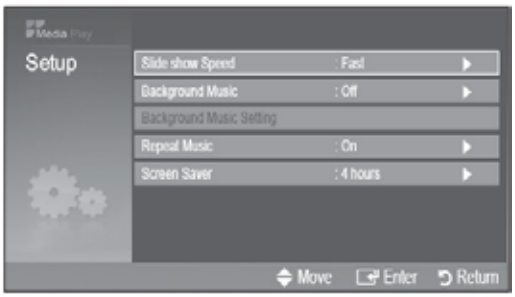
Playing Music

- Only displays files with the MP3 file extension. Other file extensions are not displayed, even if they are saved on the same USB device.
- If the sound is strange when playing MP3 files, adjust the **Equalizer** and **SRS TruSurround HD** in the **Sound** menu. (An over-modulated MP3 file may cause a sound problem.)
- Music function information icons

	Repeat Mode is **On**.
	Repeat Mode is **Off**.

Setup

Using the Setup Menu

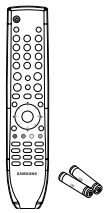
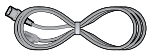
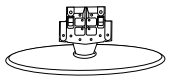
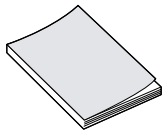
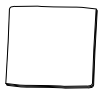


- **Slide Show Speed**: Select to control the slide show speed. You can select **Fast, Normal** or **Slow**.
- **Background Music**: Select to determine whether to play an MP3 file during a slide show. You can select "**Music off** or **Music On**".
- **Background Music Setting**: While a slide show is in progress, use the **Background Music Setting** to select a music file to listen to. Select an MP3 file as the background music.
- **Repeat Music**: Select to determine whether to repeat playing the music when all MP3 files in the current folder have been played.
- **Screen Saver**: Select to set the waiting time before the screen saver appears. The screensaver will appear when no button is pressed for **4 hours**, **8 hours**, **10 hours**.

Playing the selected photos / music files

- Press the Yellow button.
- Repeat the above operation to select desired photos / music files.
  Selected photos or files are marked with the symbol ✓. To cancel a selection, press the Yellow button again.
- Press the ENTER button to play the selected photos or files.

2-5. Accessories

Product	Description	Model	Code. No	Remark
	Remote Control & Batteries (AAA x 2)	400	AA59-00499A 4301-000121	Samsung Electronics Service center
	Power Cord	ALL	3903-000607	
	Stand	400	19" : BN90-03252A 22" : BN90-03253A 26" : BN90-03267B 32" : BN90-03268B	
	Screw (M4 x L16)	400	6002-001294	
	Quick Start Guide	400	BN68-03417A	
	Cleaning Cloth	ALL	BN63-01798B	
	Warranty Card / Registration Card / Safety Guide Manual (Not available in all locations)	ALL	BN68-00774D AA68-03242M	

3.拆卸和重新组装

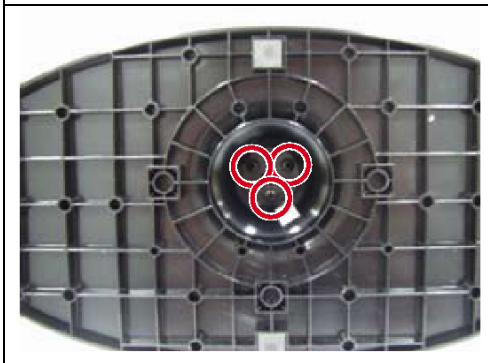
维修手册的这一章叙述LA22D400E1R LCD电视的拆卸和重新组装步骤。

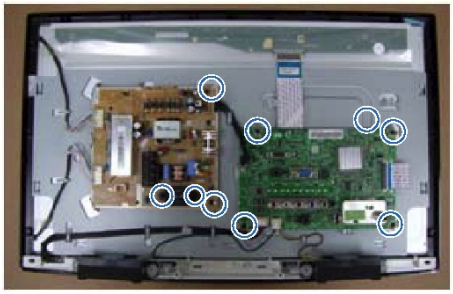
⚠ **警告：本 LCD 电视包含静电敏感器件，处理这些部件时应小心。**

3-1.拆卸和重新组装

⚠ **小心：1. 拆卸前，请断开 LCD 电视的电源。**
2. 小心按如下步骤进行；不得使用其它金属工具拆卸机箱。
3. 如果后盖是由金属制造，要小心不要造成划伤。

■ **400 - 19" / 22"**

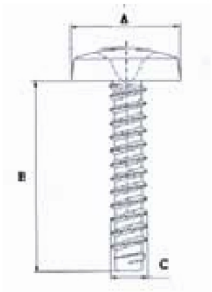
说明	图片说明	螺钉
1. 将电视面朝下放置在垫有软垫的桌面上。 拆卸底座上的 3 个螺钉。 拆卸底座。		
		 6002-001294
		
2. 拆卸后盖上4个的螺钉。		 6002-001294

说明	图片说明	螺钉
3.提起后盖。		
4.拆卸左右两侧的扬声器。		
5.拆卸主板上的 4 个螺钉。 拆卸 SMPS 板上的 4 个螺钉。		 6003-000275
6.拆卸底座架上的 6 个螺钉。	 	

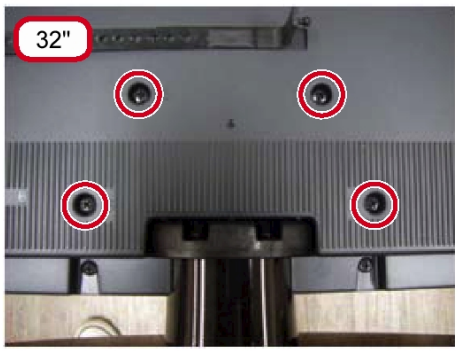
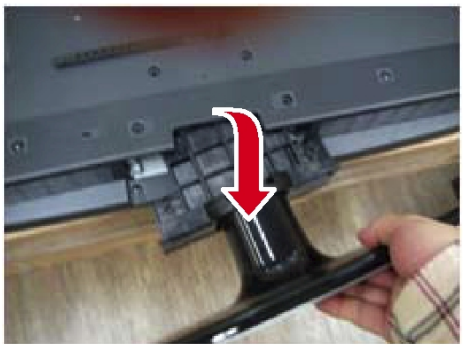
说明	图片说明	螺钉
7.提起屏板。		

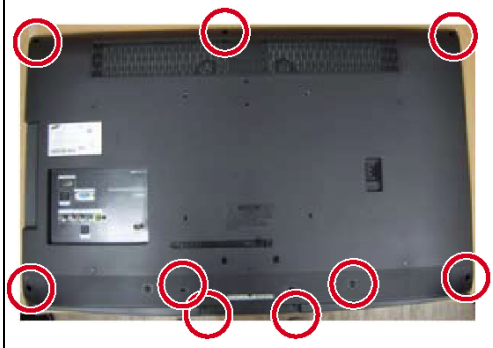
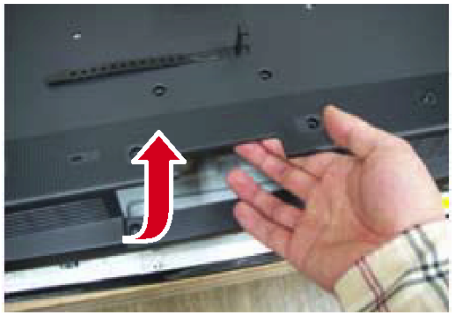
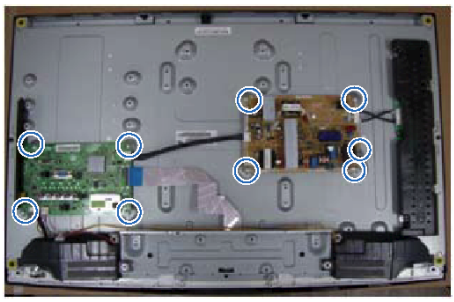
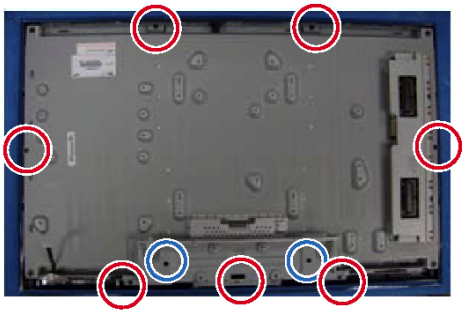
※ 重新组装步骤与拆卸步骤相反。

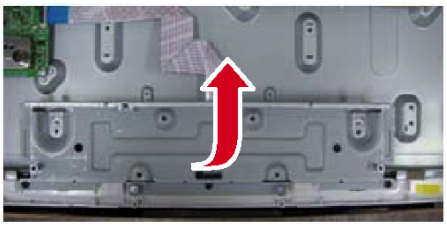
螺钉尺寸

代码	A (mm)	B (mm)	C (mm)	
6002-001294	8.3-0.5	16.0-0.8	3.85~4.0	
6003-000275	6.3-0.5	10.0-0.8	2.85~2.95	

■ LD400 - 26" / 32"

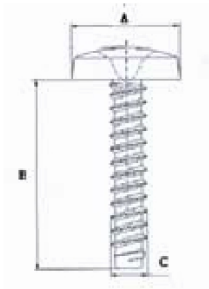
说明	图片说明	螺钉
1. 将电视面朝下放置在垫有软垫的桌面上。 拆卸底座上的 4 个螺钉。 拆卸底座。		
	 	 6002-001294 (26", 32")
		

说明	图片说明	螺钉
2.拆卸后盖上的螺钉。 26"：拆卸7个螺钉。 32"：拆卸10个螺钉。		 6002-001294 (26", 32")
3.提起后盖。		
4.拆卸左右两侧的扬声器。		
5.拆卸主板上的螺钉。 26"：拆卸4个螺钉。 32"：拆卸4个螺钉。 拆卸 SMPS 板上的螺钉。 26"，32"：拆卸5个螺钉。		 6001-002284
6.拆卸底座链接架上的螺钉。 26"：拆卸2个螺钉。 32"：拆卸5个螺钉。 拆卸屏板和前部处的螺钉。 32"：拆卸 4 个螺钉。		 6001-002284  6003-001782

说明	图片说明	螺钉
7.提起底座链接架。		
8.提起屏板。		

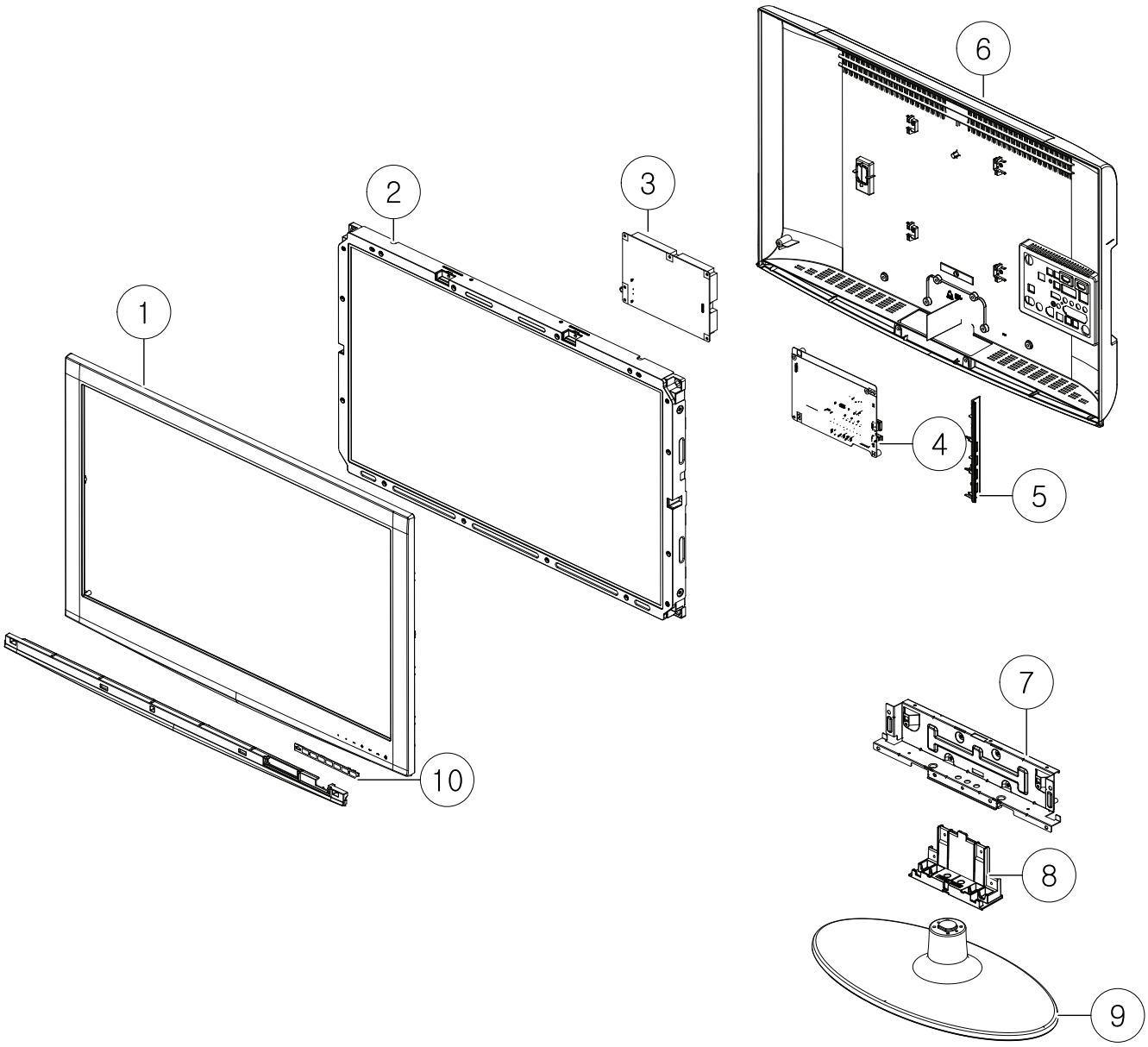
※ 重新组装步骤与拆卸步骤相反。

螺钉尺寸

代码	A (mm)	B (mm)	C (mm)	
6001-002284	8.3±0.5	8.0±0.6	3.83~3.98	
6003-001782	8.2±0.4	11.7±0.3	3.81~3.91	
6002-001294	8.3±0.5	16.0-0.8	3.85~4.00	

1. Exploded View & Part List

Exploded View



Parts List

No.	Parent	Lvl.	Loc.	Material Code	Description & Specification	SNA	Qty.
1	BN90-03317B	2	F001A	BN96-16964B	ASSY COVER P-FRONT; LD400,32,CHINA,PMMA/A	SA	1
2	BN91-06785A	2	PANEL	BN07-00951B	LCD-PANEL; V315B5-L13,CM31B53,8bits,31.5i	SA	1
3	BN91-06407F	2	P001A	BN44-00438A	AC VSS(I)-TV; PSIV121411A,I2632F1_BSM,63k	SA	1
4	BN91-06837A	2	M0014	BN94-04622A	ASSY PCB MAIN; LA32D400E1XXT	SA	1
5	BN98-03239A	3		BN61-07374A	HOLDER-SIDE AV; LD400,32,HIPS,BK0020,HB	SNA	1
6	BN90-03321D	2	R001A	BN96-16972D	ASSY COVER P-REAR; LD400,32,CHINA(Ready),	SA	1
7	BN91-06407F	2	T0910	BN96-13341A	ASSY BRACKET P-STAND LINK; LC530 32,SECC,	SA	1
8	BN90-03268B	2	SG03A	BN96-16985A	ASSY STAND P-GUIDE; LD400/450,W/W,PC+G/F,	SA	1
9	BN90-03268B	2	SB04A	BN96-16990B	ASSY STAND P-BASE; LD400/450,32,PMMA/ABS,	SA	1
10	BN96-16964B	3	FB21A	BN96-18314E	ASSY BOARD P-TOUCH FUNCTION & IR; LA32D400_	SA	1

2. Exploded View & Part List

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
			LA32D400E1XXZ (HN01)		
1	S001A	BN90-03268B	ASSY STAND;LD450,32,W/W	1	SNA
.2	SG03A	BN96-16985A	ASSY STAND P-GUIDE;LD400/450,W/W,PC+G/F,	1	SA
..3	T0524	6902-001048	BAG PE;LDPE,T0.05,W160,L300,TRP,4g	1	SNA
..3	SG03	BN61-07147A	GUIDE-STAND;LD450,32,PC+G/F,20%,V2,BK000	1	SNA
..3		BN68-03392C	MANUAL FLYER-02,STAND GUIDE;L450(32),SAM	1	SNA
..3		BN96-18013B	ASSY ACCESSORY-SCREW;6002-001294,4EA,ALL	2	SNA
...4	T0081	6002-001294	SCREW-TAPPING;BH,+,,M4,L16,ZPC(BLK)	8	SA
...4	T0524	6902-000341	BAG PE;LDPE,T0.05,L90,W70,TRP,,,PE MARK	2	SNA
.2	SB04A	BN96-16990B	ASSY STAND P-BASE;LD400/450,32,PMMA/ABS,	1	SA
..3	M0081	6003-000003	SCREW-TAPTYPE;BH,+,-,B,M4,L10,ZPC(BLK),S	3	SA
..3	M0081	6003-001239	SCREW-TAPTYPE;FH,+,B,M4,L10,ZPC(WHT),SWR	4	SA
..3		6902-000337	BAG PE;LDPE,T0.05,W450,L700,TRP,8,2-	1	SNA
..3		BN61-07270A	BRACKET-STAND BOTTOM;LD450 32",SECC,T1.2	1	SNA
..3		BN61-07272A	GUIDE-STAND, NECK;LD450,32,PC+G/F,20%,V2	1	SNA
..3	CCM1	BN63-02183D	COVER-SHEET;Rhcm,PE Vinyl,T0.05,680mm,20	0	SNA
..3		BN63-04755N	COVER-SHEET;32LC350,PE,T0.05,W180mm,200M	1	SNA
..3		BN63-07893B	COVER-STAND BASE;LD450,32,PMMA/ABS,HB,BK	1	SNA
..3	M0019	BN73-00052C	RUBBER-FOOT;LCD TV,CR RUBBER,T2.0 DIA19,	4	SNA
1		BN90-03317B	ASSY COVER FRONT;LD400,32,CHINA	1	SNA
.2	SP01A	BN96-12871D	ASSY SPEAKER P;6ohm,4pin,10W,11year LCD	1	SA
.2	F001A	BN96-16964B	ASSY COVER P-FRONT;LD400,32,CHINA,PMMA/A	1	SA
..3		BN60-00162V	SPACER-FOAM;FOAM,50000mm,Dark Gray,0.5T,	4	SNA
..3	AB326	BN61-04661A	BRACKET-STOPPER;L650,SK-5,T0.4,Plating,H	2	SNA
..3	CCM1	BN63-02183F	COVER-SHEET;Rhcm,PE Vinyl,T0.05,900mm,20	1	SNA
..3	CCM1	BN63-02183Q	COVER-SHEET;AMBER,PE,T0.08,845,200,CLEAR	1	SNA
..3	F001	BN63-08322B	COVER-FRONT;LD400,32,CHINA,ABS+PMMA,HB,R	1	SNA
..3	FB21A	BN96-18314E	ASSY BOARD P-TOUCH FUNCTION & IR;LA32D400_	1	SA
..3		BN96-18834B	ASSY HOLDER P-BOSS BOTTOM;LD400,32,ABS,H	1	SNA
...4		BN61-04692A	BOSS-PRIMER;#94,clear,35cps	0	SNA
...4		BN61-04731B	BOSS-TAPE;AMBER,ACRYL,T1.1,W12.0mm,WHITE	1	SNA
...4		BN61-07615B	HOLDER-BOSS BOTTOM;LD400 32",ABS,WT0034,	1	SNA
1	R001A	BN90-03321D	ASSY COVER REAR;LD400,32,CHINA(Ready)	1	SNA
.2	T0081	6002-001294	SCREW-TAPPING;BH,+,,M4,L16,ZPC(BLK)	10	SA
.2	R001A	BN96-16972D	ASSY COVER P-REAR;LD400,32,CHINA(Ready),	1	SA
..3		BN60-00163T	SPACER-FOAM;FOAM,50000mm,Dark Gray,0.35T	1	SNA
..3	T0101	BN61-04816A	BRACKET-WALL;40, B610,SECC,T1.2	4	SNA
..3	R001	BN63-08244A	COVER-REAR;LD400,32,HIPS,HB,BK0020	1	SNA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
..3	T0071	BN64-01577D	INLAY-TERMINAL;LD400,32,CHINA,PS SHEET,H	1	SNA
..3	T0139	BN65-00002A	CLAMPER CORE;BORDEAUX,LDPE,BLK	1	SNA
1		BN91-06407F	ASSY SHIELD;LA32D400E1XXT	1	SNA
.2	T0081	6001-002284	SCREW-MACHINE;BH,+,M4,L8,ZPC(WHT),SWRCH1	11	SA
.2	SCREW	6003-001782	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	7	SA
.2	EC13	BN39-01448E	LEAD CONNECTOR;LN32D550,Lead Connector A	1	SNA
.2	P001A	BN44-00438A	AC VSS(I)-TV;PSIV121411A,I2632F1_BSM,63k	1	SA
.2	M0230	BN96-13227A	ASSY CABLE P-FFC;LA32C450,FFC,1mm PITCH,	1	SA
.2	T0910	BN96-13341A	ASSY BRACKET P-STAND LINK;LC530 32,SECC,	1	SA
..3		BN61-02429K	STUD-PEM;PNB,M3.8,D7,L14.9,ZPC(SIL),SUM2	2	SNA
..3		BN61-05281A	HOLDER-CLAMP;LCD,NYLON 66,WHT	2	SNA
..3	M0115	BN61-06024A	BRACKET-STAND LINK;LC550 32",SECC,T1.2	1	SNA
.2		BN98-03239A	ASSY K/D-SHIELD AV;D400,ready	1	SNA
..3	EC13	BN39-01449A	LEAD CONNECTOR;LN32D550,Lead Connector A	1	SA
..3		BN61-07374A	HOLDER-SIDE AV;LD400,32,HIPS,BK0020,HB	1	SNA
1		BN91-06785A	ASSY LCD;LA32D450G1MXXY	1	SNA
.2	PANEL	BN07-00951B	LCD-PANEL;V315B5-L13,CM31B53,8bits,31.5i	1	SA
1	M0017	BN91-06837A	ASSY CHASSIS;LA32D400E1XXT	1	SNA
.2	M0014	BN94-04622A	ASSY PCB MAIN;LA32D400E1XXT	1	SA
..3		0202-001463	SOLDER-WIRE;LFC2-W3.0,-,D3,99.79Sn/0.2Cu	3	SNA
..3		0202-001608	SOLDER-WIRE FLUX;LFC7-107,D0.8,99.3Sn/0.	0	SNA
..3		0204-002420	SOLVENT;1M-1000,C3H70H,96	3	SNA
..3		0204-002607	FLUX;DF-234U,13%,14KG,Gravity 0.82	2	SNA
..3		BN97-00688A	ASSY HDCP;BN46-00018A,PS-42V6S,D73A,GENE	1	SNA
...4		BN46-00018A	KEY CODE-CERTIFICATE;(HDCP KEY)PPM42M5S,	1	SNA
..3		BN97-05495A	ASSY SMD;LA32D400E1XXT,BN41-01621A	1	SNA
...4		0202-001477	SOLDER-CREAM;LST309-M,D20~45um,96.5Sn/3A	3	SNA
...4	DS01A	0401-000116	DIODE-SWITCHING;MMSD914T1,100V,200mA,SOD	5	SA
...4	D1	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	2	SA
...4	D0254	0402-000553	DIODE-SCHOTTKY;SS24/B240,40V,2000mA,DO-2	2	SA
...4		0403-001416	DIODE-ZENER;MMSZ5227B,3.42-3.78V,500MW,S	1	SA
...4		0403-001779	DIODE-ZENER;MMSZ5234BT1G,5.89/6.51V,500m	1	SA
...4		0403-001783	DIODE-ZENER;BZB84-C6V2,5.8/6.6V,300mW,SO	6	SNA
...4	D0254	0404-001404	DIODE-SCHOTTKY;BAT721C,40V,200mA,SOT-23,	2	SA
...4	T0139	0406-001200	DIODE-TVS;RCLAMP0504F,6/-/-V,150W,SC-70	1	SA
...4	T0139	0406-001271	DIODE-TVS;RCLAMP0524P,6/-/-V,150W,SLP251	2	SNA
...4	SD3	0407-000114	DIODE-SWITCHING;KDS184,80V,100mA,SOT-23,	1	SNA
...4	Q101	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	8	SA
...4	CEQ2	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	6	SA
...4	Q409	0505-002560	FET-SILICON;AO6415,P,-20V,-3.3A,0.15ohm,	1	SA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...4	IC112	1103-001310	IC-EEPROM;24LC02B,256X8BIT,SOIC,8P,3.91X	2	SNA
...4		1103-001487	IC-EEPROM;AT24C256C-SSHL-T,256Kbit,32Kx8	1	SA
...4		1105-002127	IC-DDR2 SDRAM;K4T51163QI-HCE7,512Mbit,32	1	SA
...4	T0085	1201-002849	IC-AUDIO AMP;DRV603,TSSOP,14P,5x4.4mm,DU	1	SA
...4	T0124	1201-002993	IC-POWER AMP;TAS5715,HTQFP,48P,7x7mm,DUA	1	SA
...4		1203-004364	IC-VOL. DETECTOR;RT9818C-42PV,SOT-23,3P,	1	SA
...4	T0087	1203-006135	IC-POSI.FIXED REG.;AP1117D-33-GZ-13-89,T	1	SA
...4	IC012	1203-006138	IC-POSI.ADJUST REG.;AP1117DGZ-13-89,TO-2	1	SA
...4		1203-006142	IC-DC/DC CONVERTER;BD8924G,5P,2.9x1.6x1.	1	SA
...4	IC012	1203-006239	IC-POSI.ADJUST REG.;AP1117EGZ-13-89,SOT-	2	SA
...4		1203-006619	IC-DC/DC CONVERTER;AOZ1033AI,SO-8,8P,4.9	1	SA
...4		1204-003249	IC-DECODER;SEMS04-LF,LQFP,256P,28x28mm,P	1	SA
...4		1205-003201	IC-BUS SWITCH;TC7WB125FK,SSOP,8P,2x2.3mm	4	SA
...4		1205-003479	IC-SWITCH;TPS2051BDBVR,SOT-23,5P,2.9x1.6	1	SA
...4		1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	SA
...4		1405-001233	VARISTOR;30Vdc,5A,1.6x0.8x0.8mm,TP	6	SA
...4		1405-001271	VARISTOR;20Vdc,5A,1.0x0.5x0.6mm,TP	8	SA
...4	DR1	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	2	SA
...4	PR4	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	2	SA
...4	MROP1	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	ZPR3	2007-000106	R-CHIP;220Kohm,5%,1/10W,TP,1608	1	SA
...4	R105	2007-000138	R-CHIP;100ohm,5%,1/16W,TP,1005	32	SA
...4	AR49	2007-000140	R-CHIP;1Kohm,5%,1/16W,TP,1005	2	SNA
...4	MR306	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,TP,1005	4	SNA
...4	R319	2007-000143	R-CHIP;4.7Kohm,5%,1/16W,TP,1005	12	SNA
...4	R104	2007-000148	R-CHIP;10Kohm,5%,1/16W,TP,1005	31	SA
...4	HDR2	2007-000151	R-CHIP;15Kohm,5%,1/16W,TP,1005	4	SNA
...4	MR36	2007-000153	R-CHIP;22Kohm,5%,1/16W,TP,1005	6	SNA
...4	AR43	2007-000155	R-CHIP;27Kohm,5%,1/16W,TP,1005	1	SNA
...4	RZ07	2007-000156	R-CHIP;30Kohm,5%,1/16W,TP,1005	4	SA
...4	MR13	2007-000157	R-CHIP;47Kohm,5%,1/16W,TP,1005	1	SNA
...4	R509	2007-000170	R-CHIP;1Mohm,5%,1/16W,TP,1005	1	SNA
...4	R111	2007-000171	R-CHIP;0ohm,5%,1/16W,TP,1005	18	SNA
...4	HDR17	2007-000172	R-CHIP;10ohm,5%,1/16W,TP,1005	4	SNA
...4	R338	2007-000173	R-CHIP;22ohm,5%,1/16W,TP,1005	12	SNA
...4	UR23	2007-000174	R-CHIP;47ohm,5%,1/16W,TP,1005	6	SNA
...4	MR39	2007-000242	R-CHIP;1.5Kohm,5%,1/16W,TP,1005	1	SNA
...4	PPR2	2007-000343	R-CHIP;120ohm,1%,1/10W,TP,1608	1	SA
...4	KR7	2007-000402	R-CHIP;150ohm,5%,1/10W,TP,1608	1	SA
...4	MR9	2007-000455	R-CHIP;18Kohm,1%,1/10W,TP,1608	1	SA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...4	FR6	2007-000536	R-CHIP;200ohm,1%,1/10W,TP,1608	1	SA
...4	R38	2007-000640	R-CHIP;270ohm,1%,1/10W,TP,1608	1	SA
...4	S0F0522	2007-000691	R-CHIP;3.3Mohm,5%,1/10W,TP,1608	1	SA
...4		2007-000736	R-CHIP;30Kohm,1%,1/10W,TP,1608	1	SA
...4	R19	2007-000763	R-CHIP;330ohm,1%,1/10W,TP,1608	1	SNA
...4	DR37	2007-000932	R-CHIP;470ohm,5%,1/16W,TP,1005	6	SNA
...4	R3505	2007-000950	R-CHIP;47ohm,5%,1/4W,TP,3216	3	SA
...4	AAR20	2007-001002	R-CHIP;510ohm,5%,1/10W,TP,1608	2	SNA
...4		2007-001168	R-CHIP;75ohm,5%,1/4W,TP,3216	1	SA
...4		2007-001237	R-CHIP;910ohm,1%,1/10W,TP,1608	1	SA
...4		2007-001285	R-CHIP;5.6ohm,5%,1/16W,TP,1005	2	SA
...4	OTR1	2007-001292	R-CHIP;33ohm,5%,1/16W,TP,1005	4	SNA
...4	R326	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,TP,1005	3	SNA
...4		2007-001329	R-CHIP;7.5Kohm,5%,1/16W,TP,1005	1	SNA
...4	R1	2007-002425	R-CHIP;1ohm,5%,1/10W,TP,1608	7	SNA
...4	TR30	2007-007009	R-CHIP;75ohm,5%,1/16W,TP,1005	7	SNA
...4	R365	2007-007107	R-CHIP;100Kohm,1%,1/16W,TP,1005	5	SNA
...4		2007-007136	R-CHIP;4.7Kohm,1%,1/16W,TP,1005	1	SNA
...4	DR4	2007-007142	R-CHIP;10Kohm,1%,1/16W,TP,1005	3	SNA
...4		2007-007297	R-CHIP;110ohm,1%,1/10W,TP,1608	1	SA
...4		2007-007318	R-CHIP;1Kohm,1%,1/16W,TP,1005	2	SNA
...4		2007-007319	R-CHIP;390ohm,1%,1/16W,TP,1005	1	SNA
...4	R8	2007-007721	R-CHIP;560ohm,1%,1/10W,TP,1608	1	SA
...4	DAR09	2011-001262	R-NETWORK;22ohm,5%,1/16W,L,CHIP,8P,TP,2.	9	SA
...4		2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP,2.	2	SNA
...4	HRP2	2011-001344	R-NETWORK;100ohm,5%,1/16W,L,CHIP,8P,TP,2	8	SA
...4		2011-001345	R-NETWORK;10Kohm,5%,1/16W,L,CHIP,8P,TP,2	4	SA
...4	AC1	2203-000125	C-CER,CHIP;1.2nF,10%,50V,X7R,TP,1608,-	4	SA
...4	PC43	2203-000233	C-CER,CHIP;0.1nF,5%,50V,C0G,TP,1005	5	SA
...4	C258	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,TP,1608	2	SA
...4	DC54	2203-000278	C-CER,CHIP;0.01nF,0.5pF,50V,C0G,TP,1005	2	SA
...4	C254	2203-000438	C-CER,CHIP;1nF,10%,50V,X7R,TP,1005	6	SA
...4	C507	2203-000489	C-CER,CHIP;2.2nF,10%,50V,X7R,TP,1005	6	SA
...4	V1233	2203-000575	C-CER,CHIP;220nF,10%,25V,X7R,TP,2012	6	SNA
...4	MC9	2203-000627	C-CER,CHIP;0.022nF,5%,50V,C0G,TP,1005	2	SNA
...4	DC25	2203-000812	C-CER,CHIP;0.033nF,5%,50V,C0G,TP,1005	3	SA
...4	AD480	2203-000995	C-CER,CHIP;0.047nF,5%,50V,C0G,TP,1005	3	SA
...4	AD480	2203-001412	C-CER,CHIP;0.03nF,5%,50V,NP0,1005	2	SNA
...4	AD480	2203-001428	C-CER,CHIP;470nF,10%,50V,X7R,TP,2012	2	SNA
...4	AD480	2203-002285	C-CER,CHIP;10nF,10%,50V,X7R,TP,1005	4	SNA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...4	AD480	2203-002525	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1005	4	SNA
...4	AAC1	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	10	SNA
...4	AD480	2203-005968	C-CER,CHIP;4.7nF,10%,50V,X7R,TP,1005,0.5	3	SNA
...4	AD480	2203-006126	C-CER,CHIP;47nF,10%,16V,X7R,TP,1005	17	SNA
...4	C102	2203-006158	C-CER,CHIP;100nF,10%,16V,X7R,TP,1005,0.5	70	SNA
...4	AD480	2203-006336	C-CER,CHIP;10000nF,10%,25V,X5R,TP,3216	3	SA
...4	C802	2203-006348	C-CER,CHIP;1000nF,10%,25V,X5R,TP,1608	2	SA
...4	C125	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,TP,2012	19	SC
...4	C234	2203-006378	C-CER,CHIP;4700nF,10%,6.3V,X5R,TP,1608	5	SA
...4	AD480	2203-006460	C-CER,CHIP;2200nF,10%,16V,X5R,TP,1608,-	1	SA
...4	PC23	2203-006560	C-CER,CHIP;22000nF,10%,10V,X5R,-,3225,-	1	SA
...4	HDC11	2203-006562	C-CER,CHIP;1000nF,10%,10V,X5R,TP,1005	7	SNA
...4	AD480	2203-006698	C-CER,CHIP;1000nF,10%,25V,X7R,1608	2	SNA
...4	AD480	2203-006992	C-CER,CHIP;0.33nF,5%,50V,C0G,TP,1005	2	SNA
...4	AD480	2203-007176	C-CER,CHIP;10000nF,10%,16V,X5R,TP,2012	10	SNA
...4	AD480	2203-007513	C-CER,CHIP;10000nF,10%,10V,X5R,TP,1608	5	SA
...4	T0052	2703-000158	INDUCTOR-SMD;1uH,10%,2012	4	SA
...4	VL6	2703-000398	INDUCTOR-SMD;10uH,10%,3225	2	SA
...4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
...4	T0052	2703-003149	INDUCTOR-SMD;2.2uH,20%,5050	1	SA
...4		2703-003890	INDUCTOR-SMD;47uH,10%,3225	1	SA
...4		2703-003930	INDUCTOR-SMD;4.7uH,20%,5050	4	SA
...4	X202	2801-003773	CRYSTAL-SMD;12MHz,30ppm,28-AAN,20pF,50oh	1	SA
...4	F103	2901-001506	FILTER-EMI SMD;5V,0.13A,0pF,2x1x0.5mm,TP	2	SA
...4	DR32	3301-000314	BEAD-SMD;120ohm,1.6x0.8x0.8mm,-,-,-	2	SNA
...4	T0568	3301-001082	BEAD-SMD;60ohm,3225,TP,43ohm/40MHz,83ohm	1	SNA
...4	T0568	3301-001236	BEAD-SMD;60ohm,1608	3	SNA
...4	T0568	3301-001404	BEAD-SMD;30ohm,2012,TP,15.9OHM/30MHz,-	16	SA
...4	T0568	3301-002039	BEAD-SMD;26ohm,1608,TP	9	SA
...4		3701-001591	CONNECTOR-HDMI;19P,2ROW,FEMALE,SMD-S,AU	1	SA
...4		3701-001746	CONNECTOR-DSUB;15P,3ROW,FEMALE,STARAIGHT	1	SNA
...4	AC510	3708-001150	CONNECTOR-FPC/FFC/PIC;30P,1mm,SMD-A,SN,Y	1	SA
...4	EH01	3711-007582	HEADER-BOARD TO CABLE;BOX,8P,1R,2.0mm,AN	1	SA
...4		3711-007585	CONNECTOR-HEADER;BOX,4P,1R,2.5mm,ANGLE-D	1	SA
...4		3711-007741	CONNECTOR-HEADER;BOX,14P,2R,2.0mm,ANGLE,	1	SNA
...4		3722-003213	JACK-PIN;J/B 5P + Screw hole,NI+SN,BLK,S	1	SA
...4		3722-003225	JACK-USB;4P/1C,Au,BLK,SMD-A(DIP),A	1	SNA
...4		3722-003226	JACK-PHONE;7P/1C,SN,BLK	2	SNA
...4	ET01	BN40-00142C	TUNER;HTM-8B/23B5S,HTM-8B/23B5S,PAL B/G,	1	SA
...4		BN41-01628A	PCB MAIN;D400_LOLA4,FR-4,4,A,1.2,192x122	1	SNA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...4		BN97-05259B	ASSY MICOM;T-LL4MEAMH	1	SNA
....5	IC115	1107-001777	IC-FLASH MEMORY;MX25L6405DMI-12G,64Mbit,	1	SNA
..3	T0066	BP62-00017A	HEAT SINK-ES;SP-50L2HX,A6063S,T2.0,26.2,	1	SNA
1	ACCE1	BN92-07543F	ASSY ACCESSORY;LA32D400E1XXZ	1	SNA
.2	ACCE4	BN96-16912A	ASSY ACCESSORY-MANUAL;LA32D400E1XXZ	1	SNA
..3		6902-000476	BAG PE;LDPE,T0.03,W250,L350,TRP,Recycle,	1	SNA
..3	T0059	AA68-03184A	LEAFLET-CARD-09;ALL MODEL,CHINESE,212,29	1	SNA
..3		AA68-03184C	LEAFLET-SERVICE CARD;comm,Samsung,SC,CHI	1	SNA
..3		BN68-03402G	MANUAL USERS-IB;Comm,Samsung,SC,Asia_Rea	1	SNA
.2	ACCE2	BN96-16912P	ASSY ACCESSORY-CABLE;LA32D400E1XXZ	1	SNA
..3	T0268	3903-000604	CBF-POWER CORD;DT,CHINA,LSG-21L,250V,2.5	1	SNA
..3		6902-001340	BAG PE;LDPE,T0.05,W250,L350,TRP,RECYCLE	1	SNA
..3	REMO2	AA59-00517A	REMOCON;TM940,39,3V,CHINA,400R	1	SA
..3		BN43-00004A	BATTERY;BM1L,BATTERY,MN,600mAh,7.9g	2	SNA
..3	M9889	BN63-01798B	CLOTH-CLEAN;cloth,180,200,sea blue,ToC	1	SNA
..3	T0527	BN68-00513A	LABEL-E,PASS;ALL MODEL,YUPO(110G),50X15,	1	SNA
1		BN92-07544E	ASSY LABEL;LA32D400E1XXZ	1	SNA
.2	CCM1	BN68-01176A	LABEL RATING;W/W,SS,PET POLYESTER,T0.05,	1	SNA
1		BN92-08006D	ASSY BOX;LD400,32,CHINA(Ready)	1	SNA
.2		BH68-00662A	LABEL BOX-00;ALL MODEL,MOJO 90G,60,110,W	1	SNA
.2		BN68-03352B	LABEL-STICKER;LA32D400E1R,CHINA,ART PAPE	1	SNA
.2		BN69-05963E	BOX-SET;32LD400,CB,A-01,SW2,YEL,W988,D14	1	SNA
1		BN92-08378B	ASSY P/MATERIAL-P/M;LA32D460E1TXXZ	1	SNA
.2		6902-000061	BAG AIR;LDPE,T0.2,W500,L1000,TRP,370.000	1	SNA
.2		6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,1260.0	1	SNA
.2	T0524	6902-000519	BAG PE;HDPE/NITRON,T0.015/T0.5(DOUBLE),W	1	SNA
.2		6902-000604	BAG WRAPPING;LDPE,T0.02,W500,L10000,TRP,	4222	SNA
.2		6902-000609	BAG ROLL;LDPE,T0.05,W2400,L1000,TRP,30.0	0	SNA
.2		6902-001178	BAG SHEET;HDPE/NITRON,T0.015/T01.0,W400,	1	SNA
.2	M040	6922-000013	BAND PP;PP,W18,L2300/L2900,TRP	1	SNA
.2		BH69-40303L	PACKING PALLET-00;COMM,WOOD,1020,994,120	1	SNA
.2		BN69-00391Q	PAD-ANGLE;PAPER,T4,50,1800,YEL	1	SNA
.2		BN69-05634A	CUSHION-SET;32LD400/450,EPS,MOLD REAR	1	SNA
.2		BN74-00008D	TAPE-OPP MASKING;OPP,T0.05,W75,L800M,CLR	2	SNA

4.故障排除

4-1.故障排除

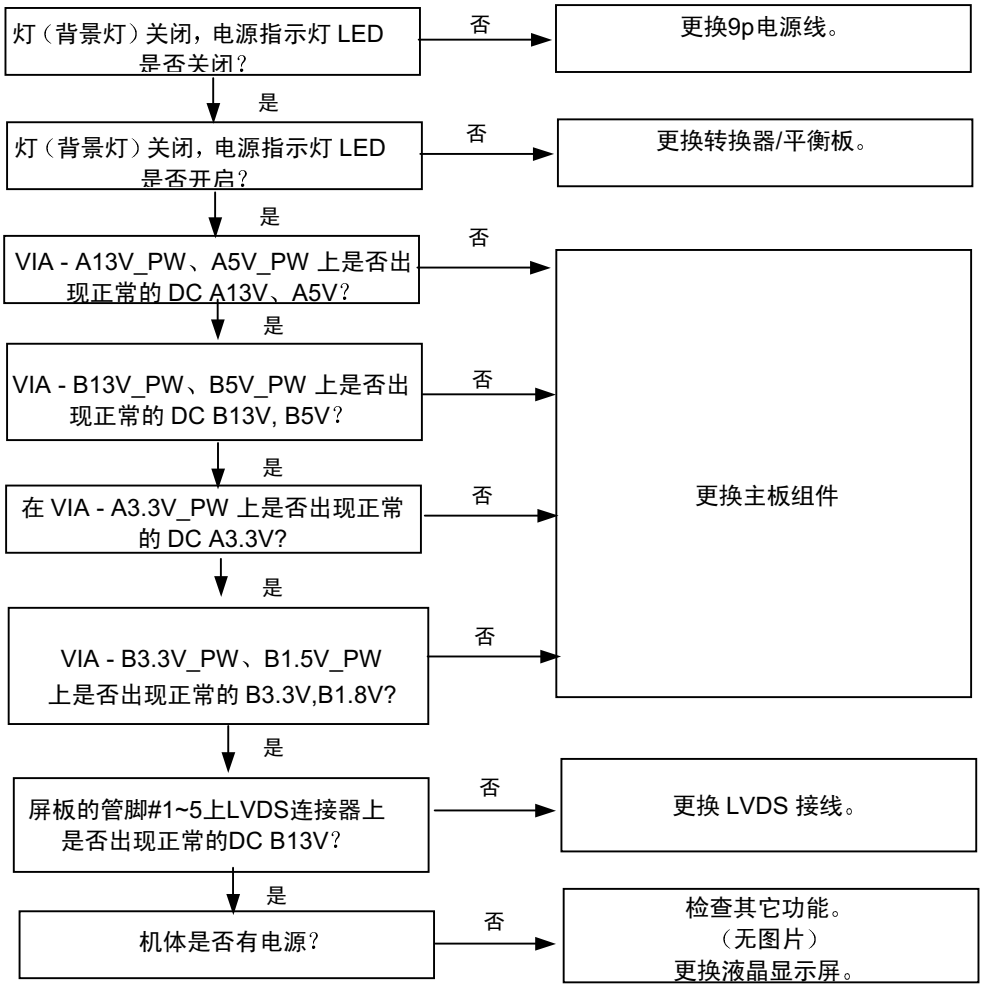
4-1-1.预前检查

1.首先检查各电缆连接情况。

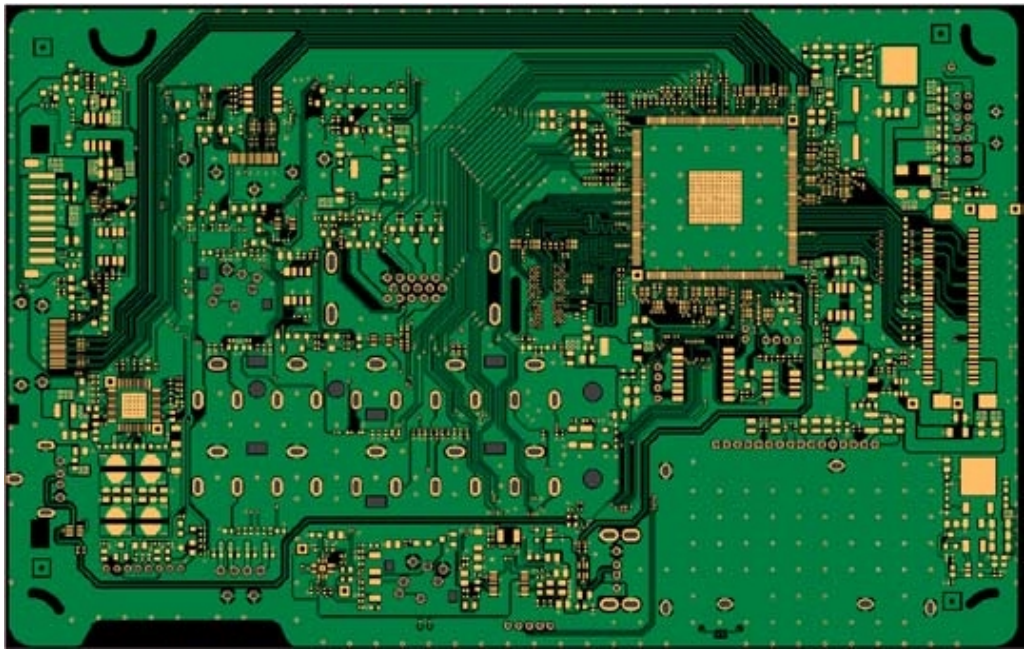
- 检查是否有烧坏或损坏的接线。
- 检查接线是否断开，或连接处太松。
- 检查是否依据连接图连接接线。

2.检查主板的电源输入。

4-1-2.未通电

征兆	-当连接电源线时，前面板上的 LED 指示灯未工作。 -当连接电源线时，SMPS 继电器未工作。 -本机似乎损坏。
主要检查点	如果接线连接不当或主板或 SMPS 有故障，当连接电源线时，前面板上的 IP 继电器或 LED 指示灯不工作。在这种情况下，检查下列各项： -检查本机内部接线连接状态。 -检查各零件的保险丝。 -检查 SMPS 的输出电压。 -更换主板。
诊断	 
小心	在 IP 板上工作之前，必须断电。

顶部



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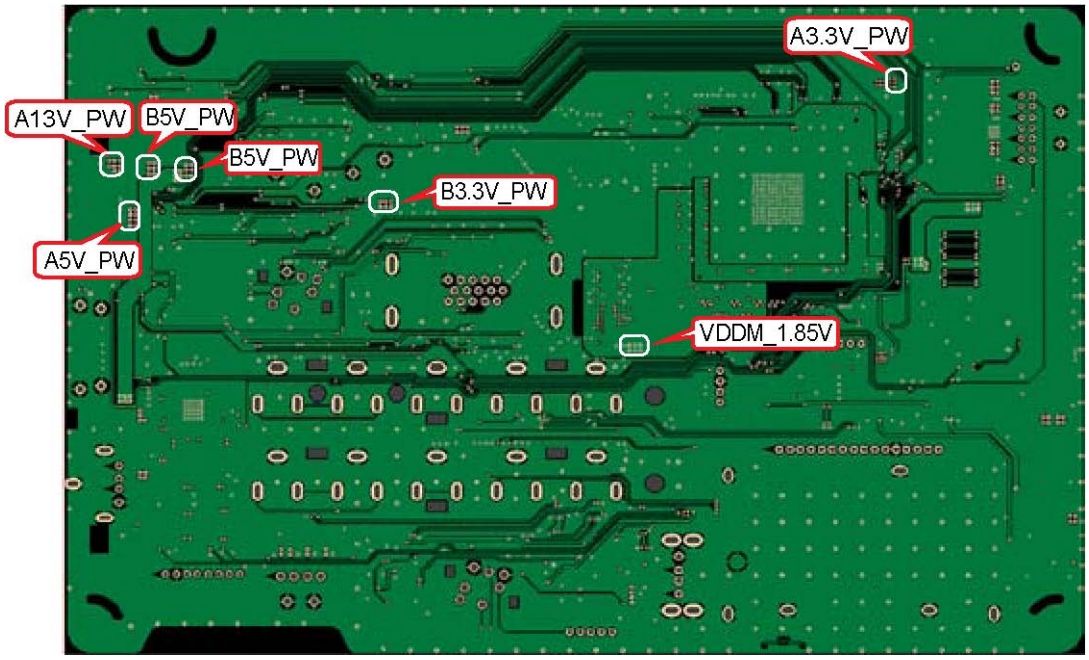
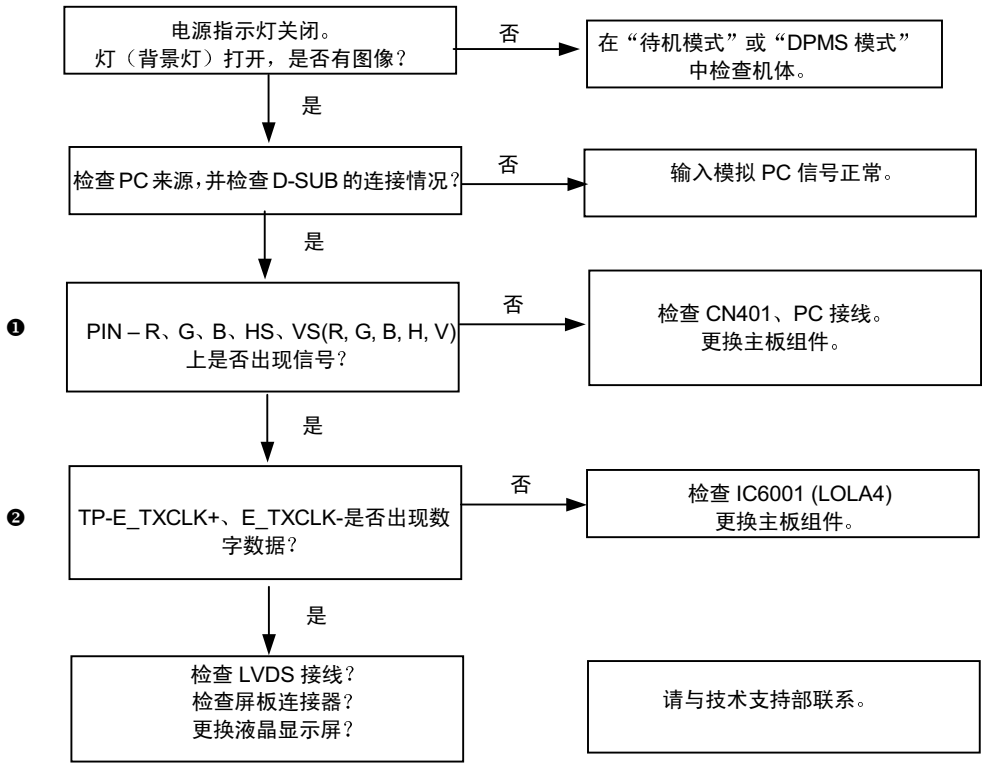


TCON

4-1-3.无图像（模拟 PC 信号）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查 PC 来源 -检查Arsenal，检查Chelsea -当断开连接主板和面板的 LVDS 接线时，可能出现这种情况。
诊断	 
小心	在 IP 板上工作之前，必须断电。

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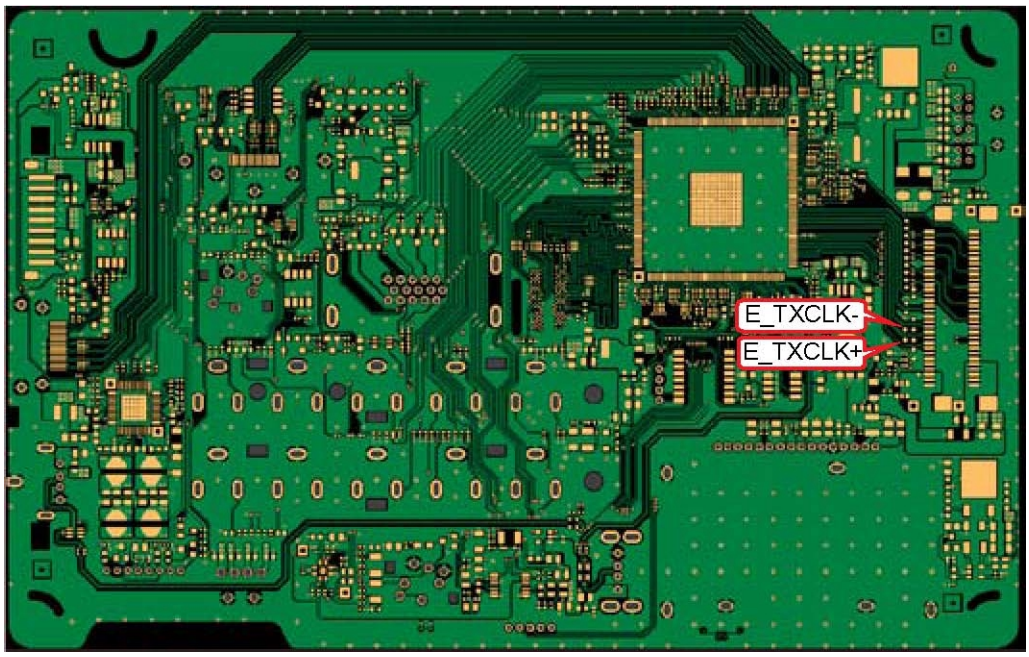

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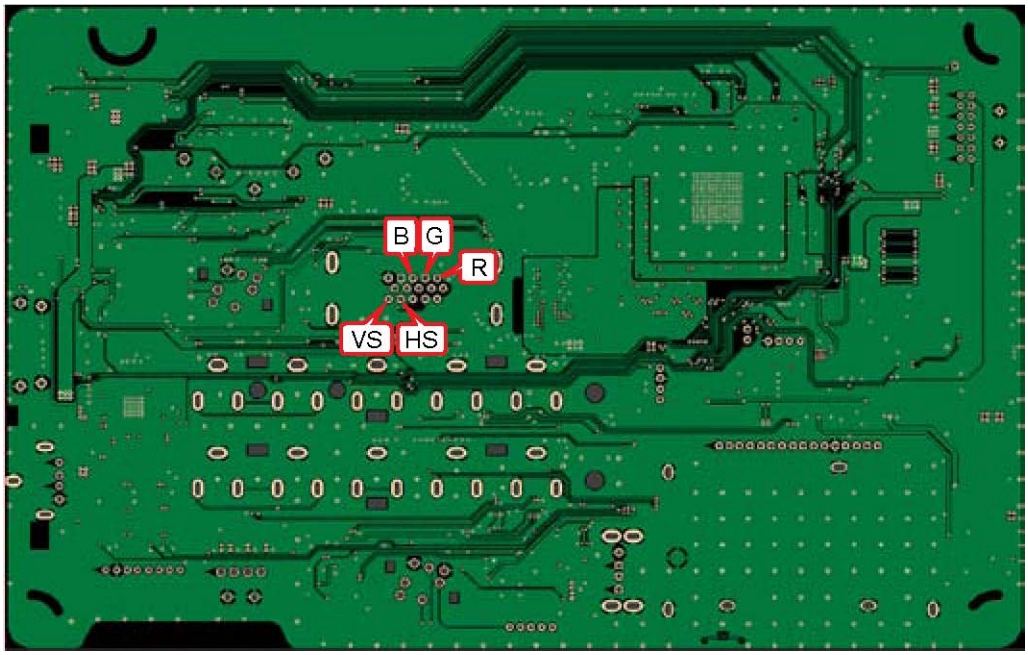
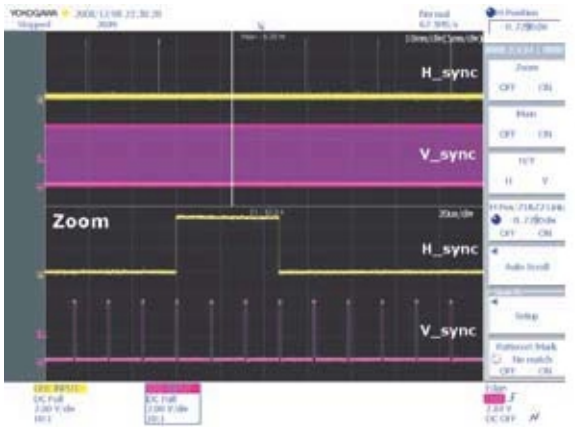
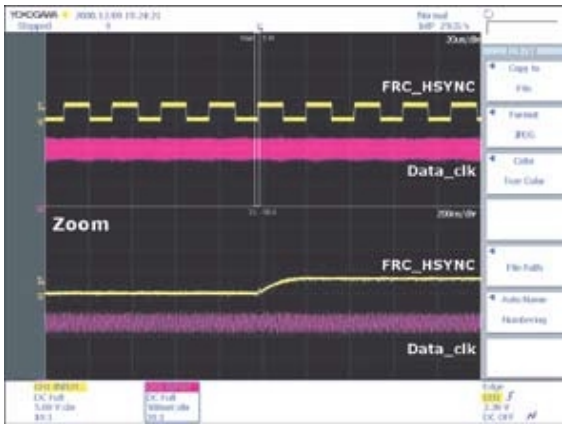


波形

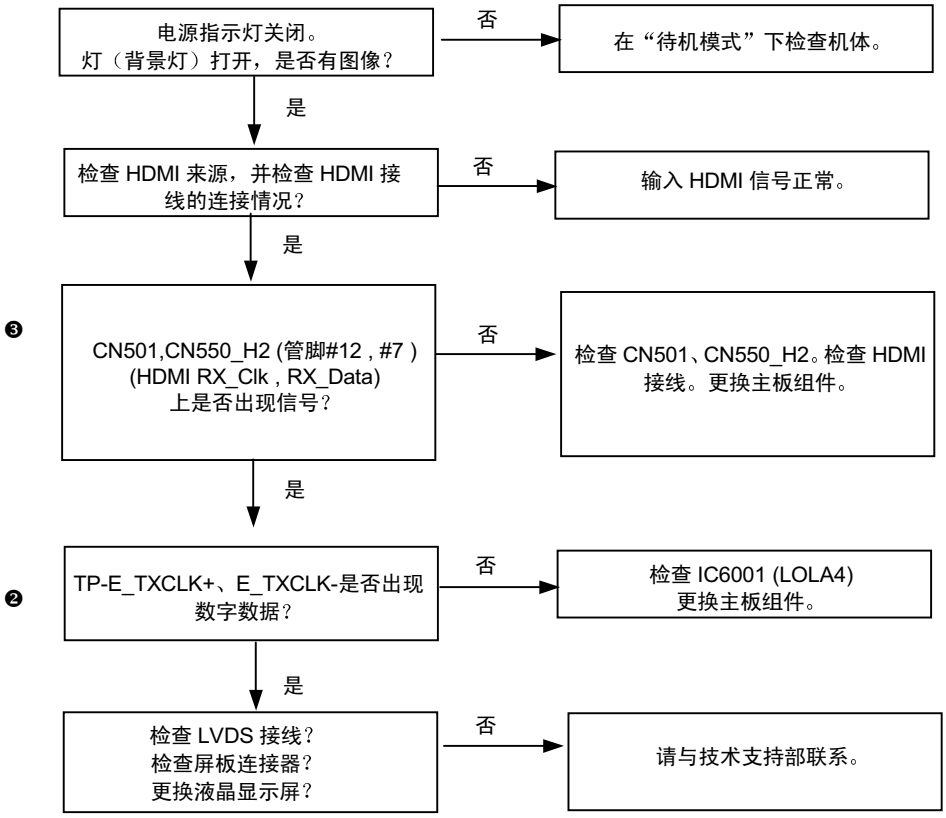
❶	PC输入信号(V-sink , H-sink , R/G/B)



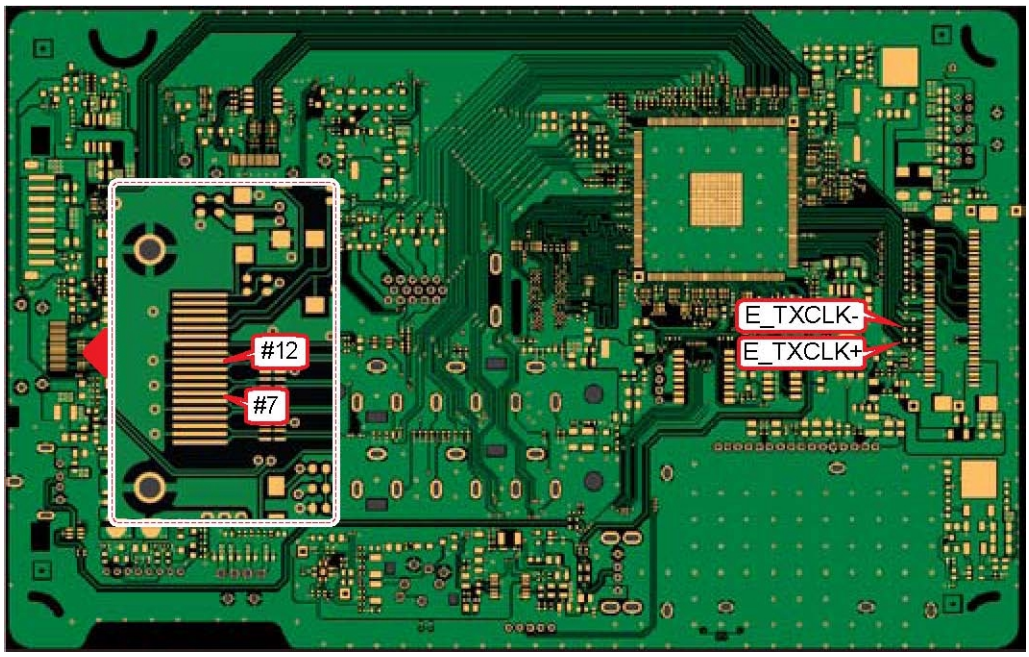
❷	LVDS输出信号



4-1-4.没有图像（HDMI1-数字信号）

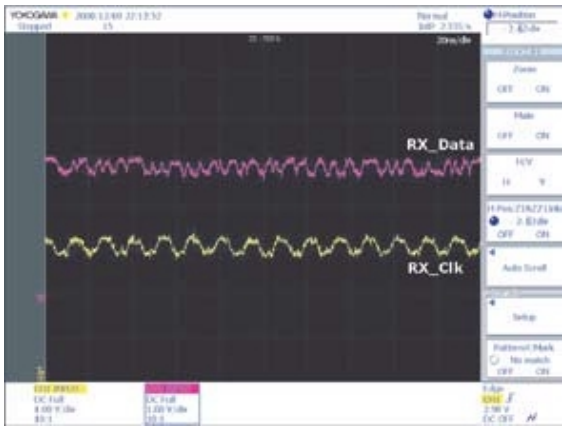
征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查 HDMI 来源 -检查HDMI 切换器，检查Chelsea -当断开连接主板和面板的 LVDS 接线时，可能出现这种情况。
诊断	 
小心	在 IP 板上工作之前，必须断电。

顶部

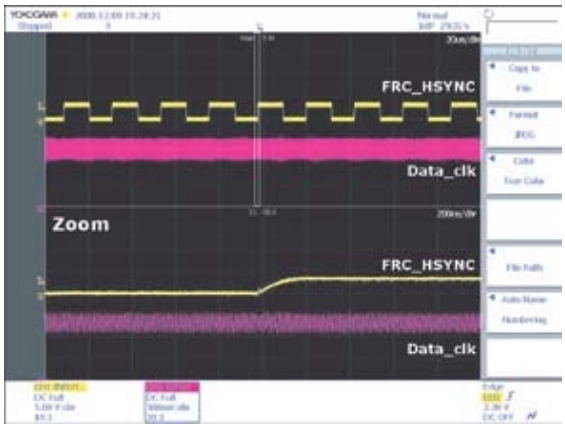


波形

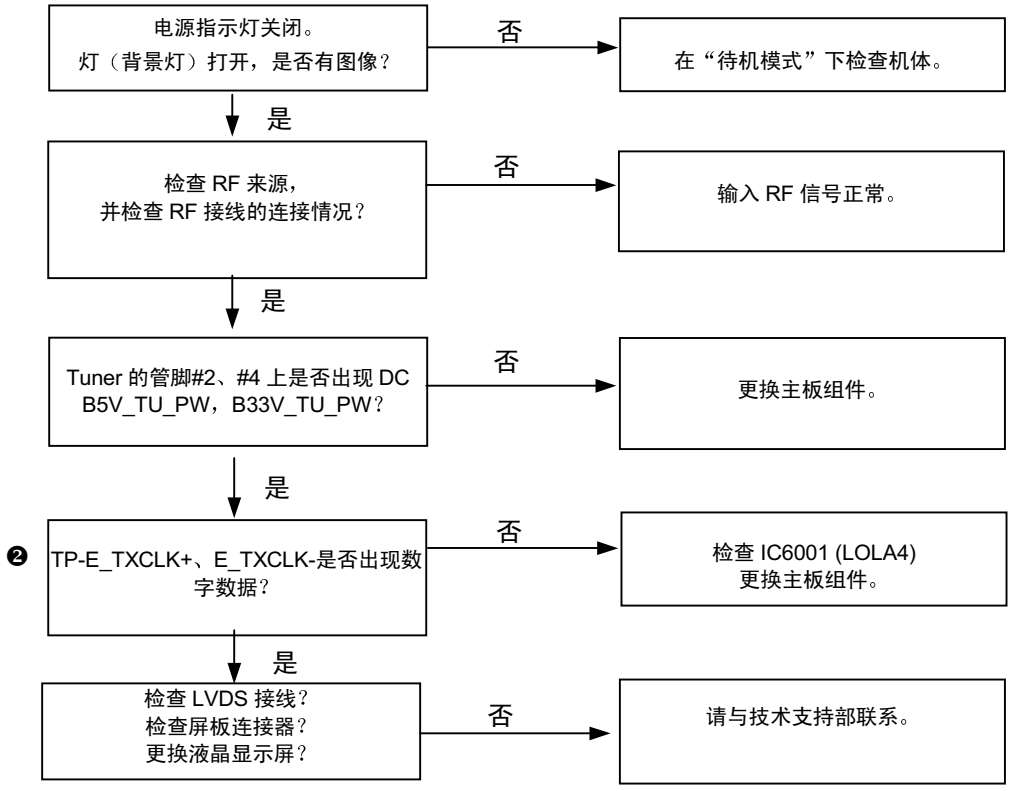
❸	HDMI输入信号(RX_Data, RX_Clk)



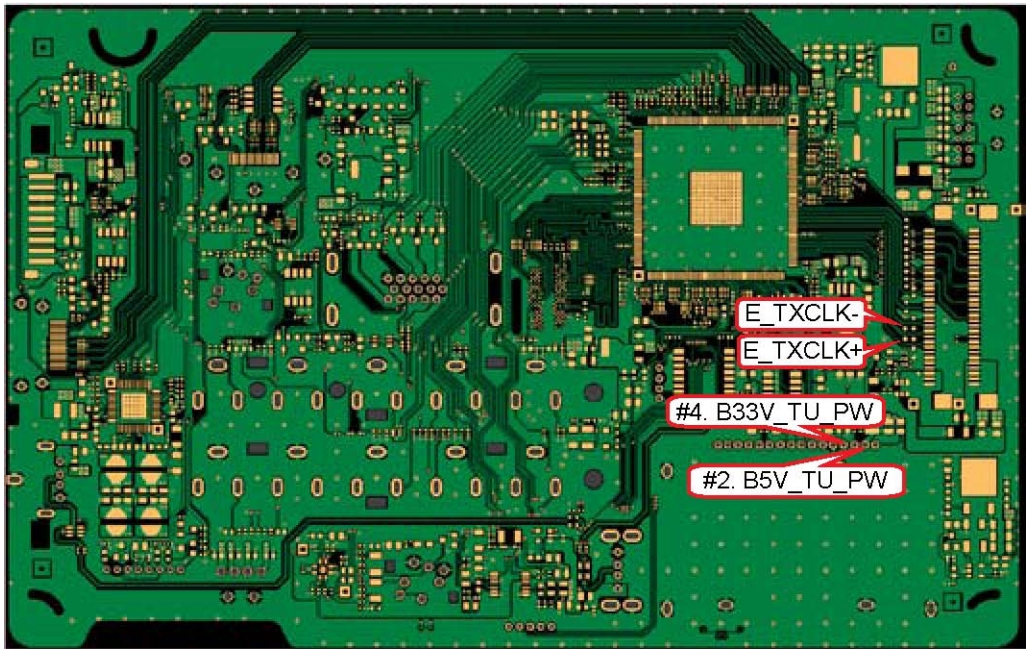
❷	LVDS 输出信号



4-1-5.没有画面（Tuner_CVBS）

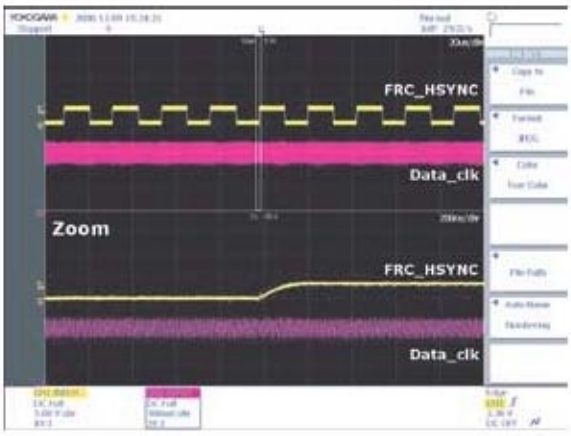
征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查 Tuner CVBS 来源 -检查Tuner，检查Chelsea -当断开连接主板和面板的 LVDS 接线时，可能出现这种情况。
诊断	 
小心	在 IP 板上工作之前，必须断电。

顶部

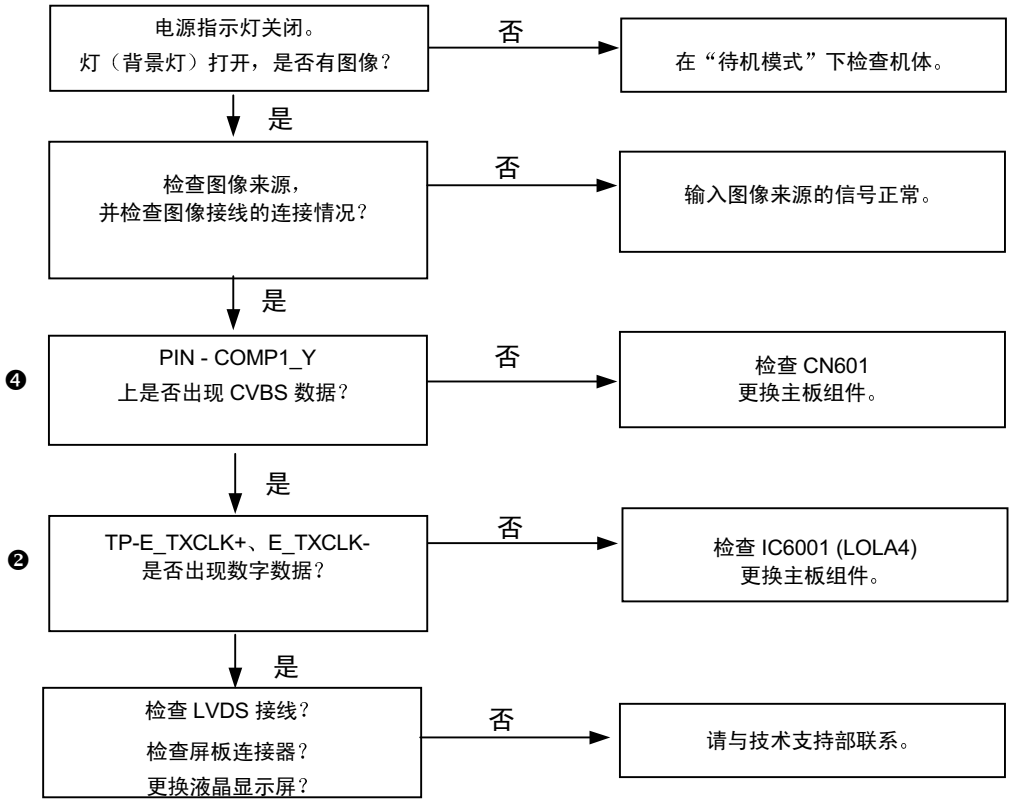


波形

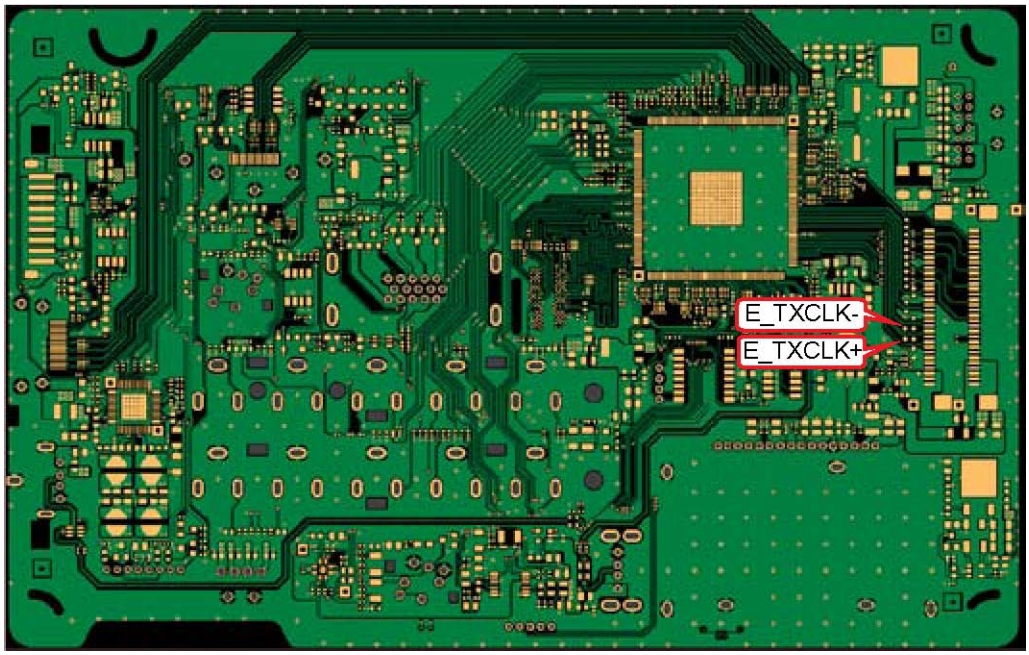
❷	LVDS 输出信号



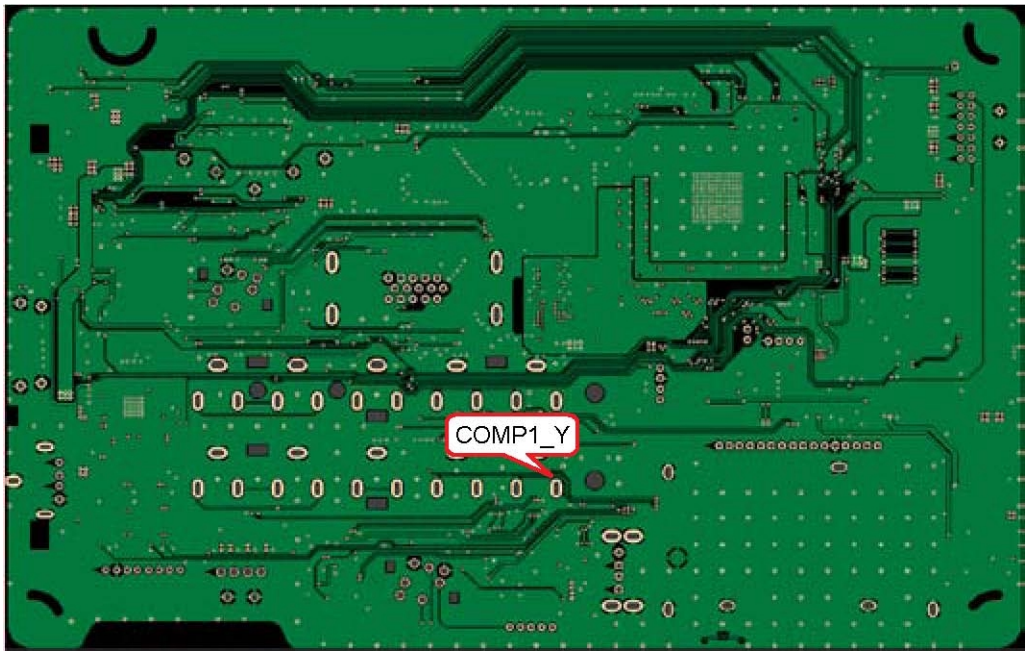
4-1-7.没有画面（Video CVBS）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查图像 CVBS 来源 -检查Chelsea -当断开连接主板和面板的 LVDS 接线时，可能出现这种情况。
诊断	 
小心	在 IP 板上工作之前，必须断电。

顶部

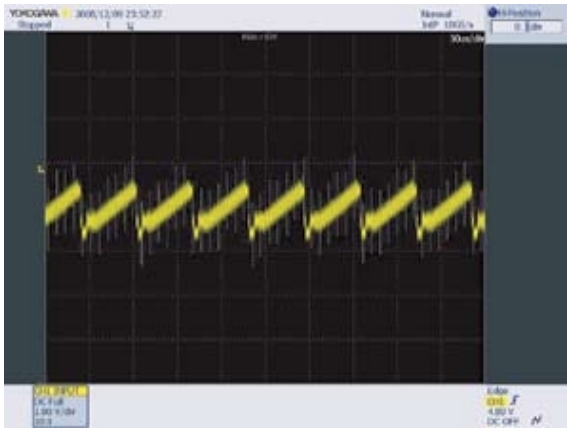


底部

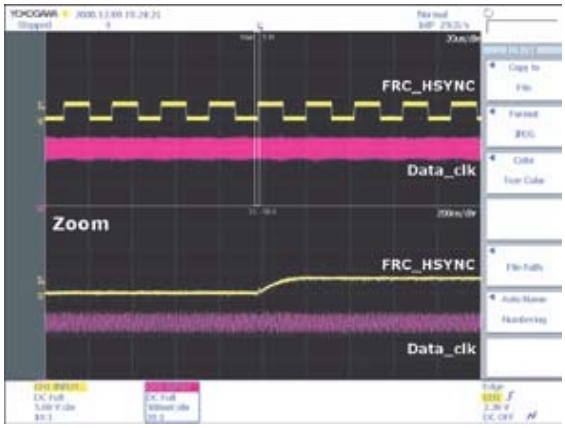


波形

❹	CVBS输出信号(Grey Bar)



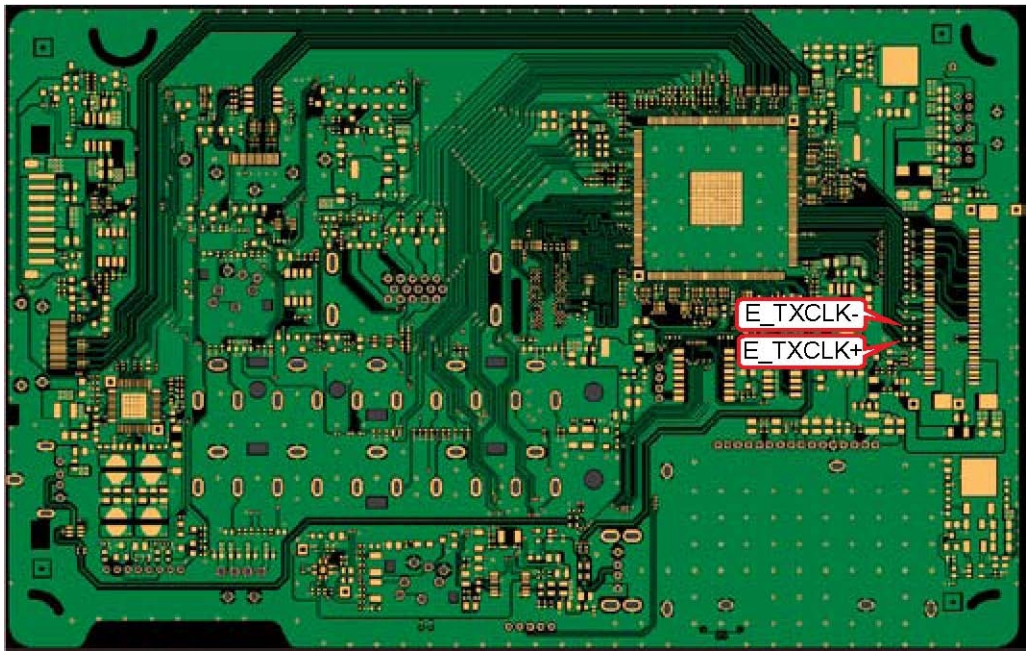
❷	LVDS输出信号



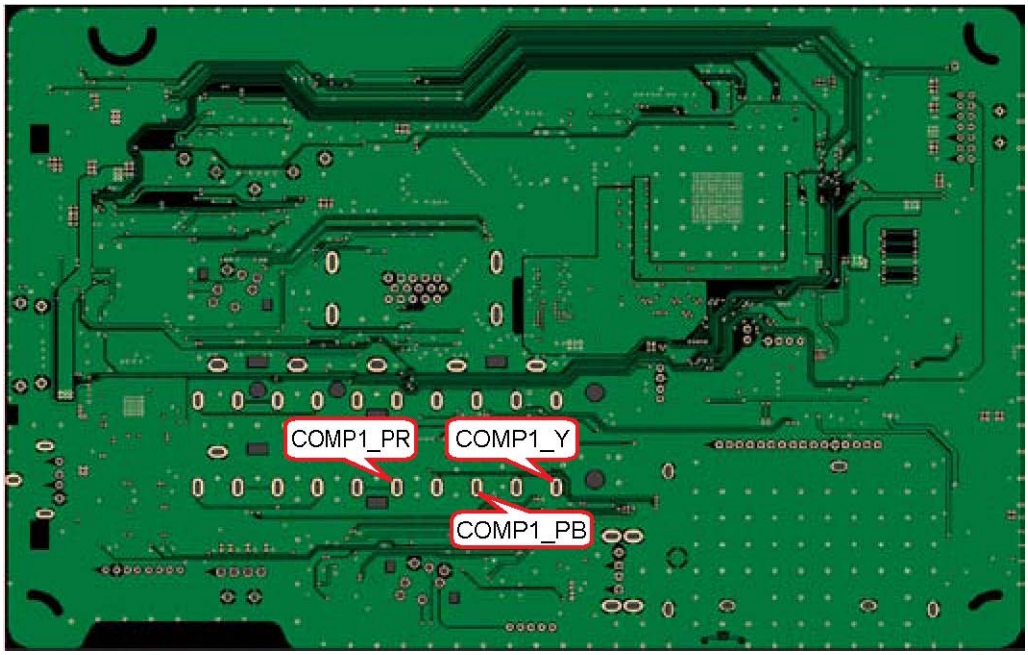
4-1-8.没有画面（分量）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查分量来源 -检查Chelsea -当断开连接主板和面板的 LVDS 接线时，可能出现这种情况。
诊断	 电源指示灯关闭。灯（背景灯）打开，是否有图像？ → 否 → 在“待机模式”下检查机体。 ↓ 是 检查分量来源，并检查分量接线(Y,Pb,Pr)的连接情况？ → 否 → 输入图像来源的信号正常。 ↓ 是 ❺ PIN – COMP1_Y、COMP1_PB, COMP1_PR上是否出现分量数据？ → 否 → 检查CN601 更换主板组件。 ↓ 是 ❷ TP-E_TXCLK+、E_TXCLK-是否出现数字数据？ → 否 → 检查IC6001 (LOLA4) 更换主板组件。 ↓ 是 检查 LVDS 接线？ 检查屏板连接器？ 更换液晶显示屏？ → 否 → 请与技术支持部联系。
小心	在 IP 板上工作之前，必须断电。

顶部

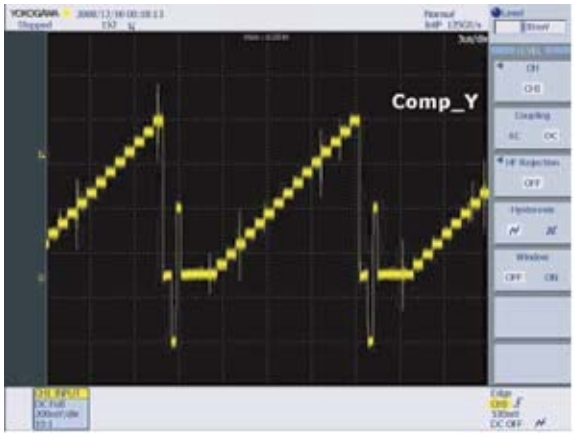


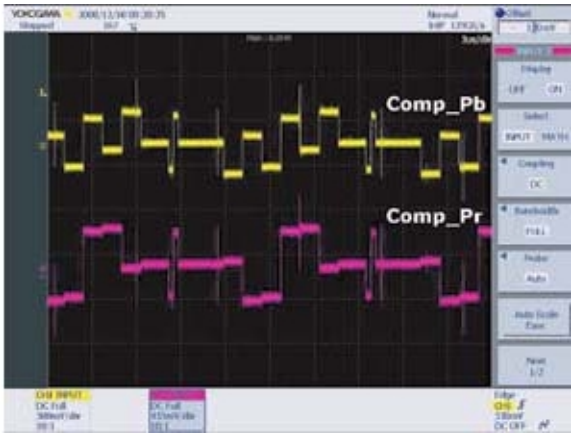
底部



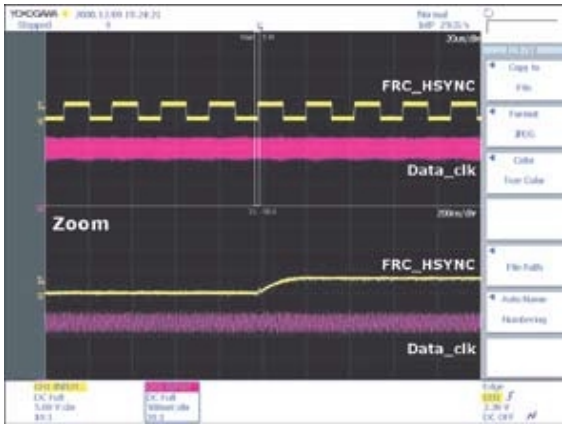
波形

❺	Compnent_Y (灰度色标) / Pb / Pr (色彩条)

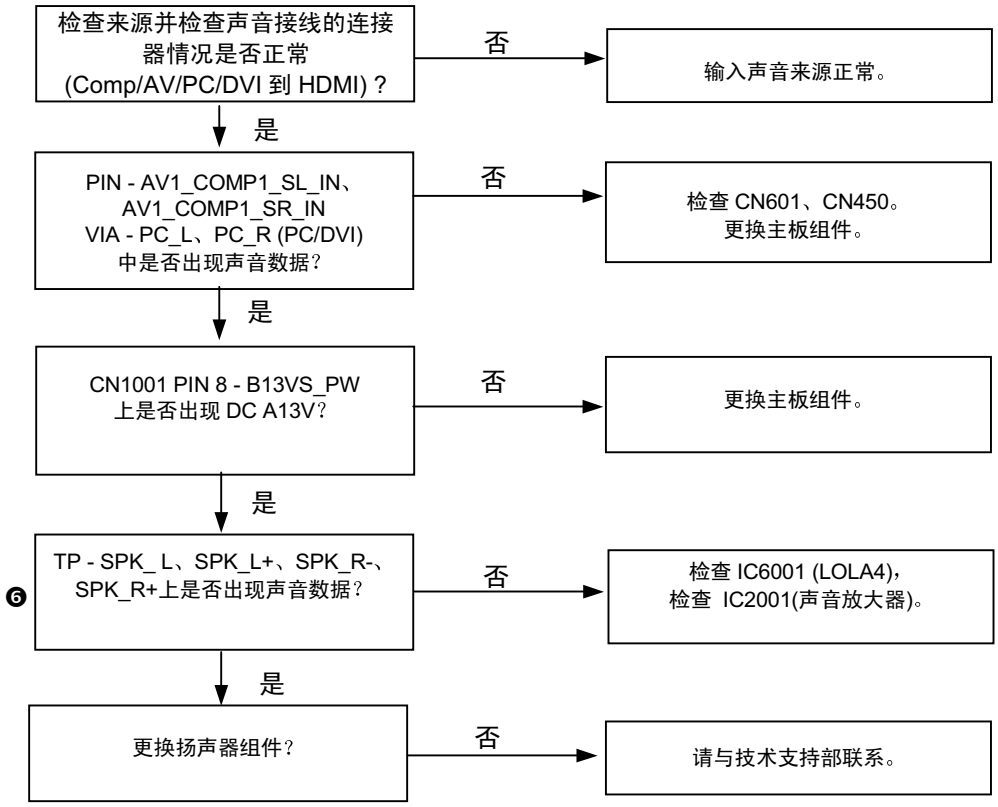




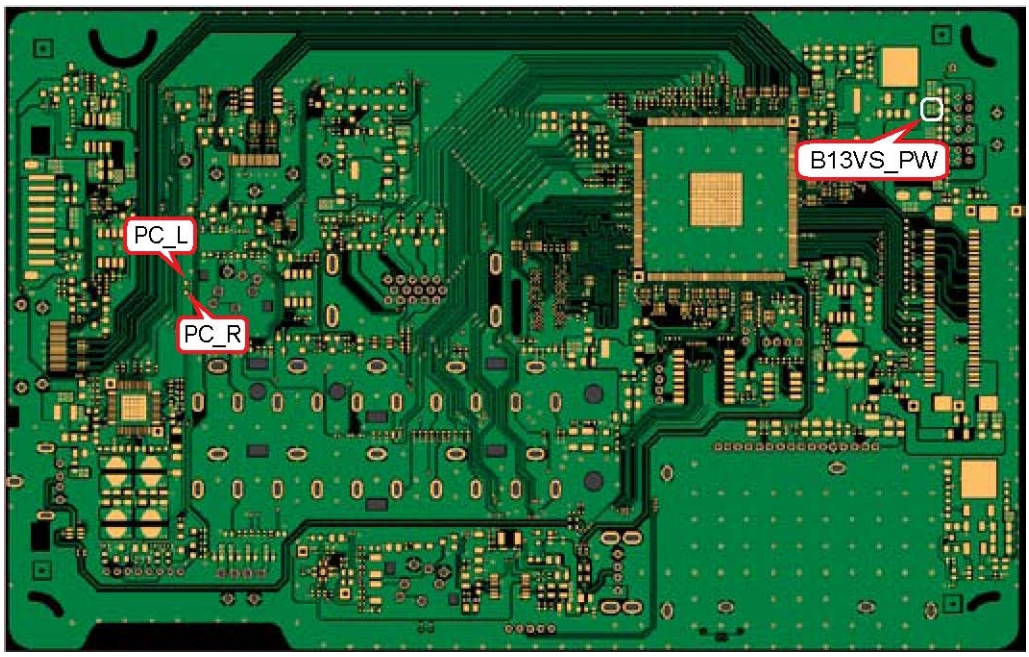
❷	LVDS 输出信号



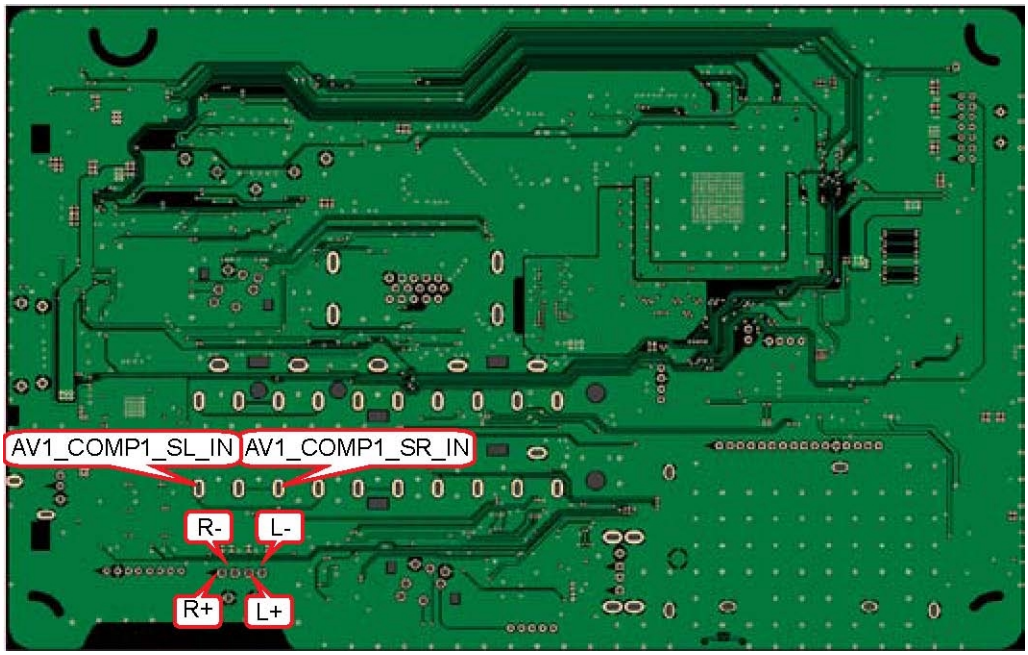
4-1-9.没有声音

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-当扬声器连接器被断开或损坏。 -当主板的声音处理部分不能运作。 -扬声器故障。
诊断	 
小心	在 IP 板上工作之前，必须断电。

顶部

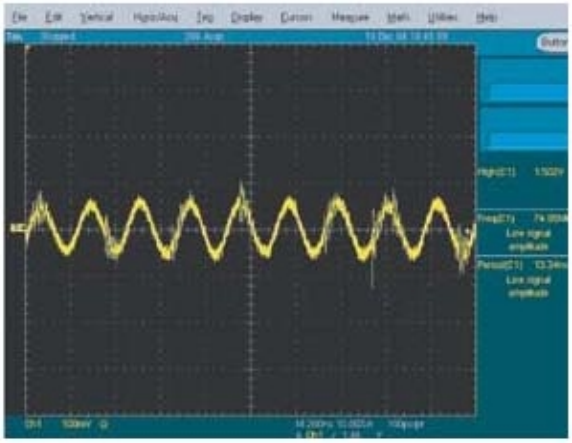


底部



波形

❻	扬声器输出信号



4-2.调整和调节

4-2-1 一般维修说明

1. 通常，彩色液晶电视只需在安装时稍加调节。检查基本特性，如高度、水平和竖直同步。

2. 使用规定的测试设备或等效品。

3. 需要正确的匹配阻抗。

4. 避免过载。扫描振荡器发出的过多信号可能使电视的前端过载。当插入标志信号时，不可使标志信号发生器干扰测试结果。

5. 只可把电视连接到具有后盖铭牌上标定的电压和频率的交流电源上。

6. 当电视机处于开机状态时，不可试图连接或断开接线。必须保证在更换任何零件时拔下电源线。

7. 为了防止电击危险，应使用隔离变压器。

4-3.工厂模式调节

4-3-1 进入工厂模式

如欲进入“Service Mode”，可按下列顺序按下遥控键：

-如果没有工厂遥控器

关机 → 信息 → 菜单 → 静音

4-3-2 如何进入维修模式

使用客户遥控

1. 关机并设置为待机模式。
2. 按此顺序按下遥控按钮：关机-信息-菜单-静音可以开机。
3. 开机并进入到维修模式，这可能需要耗费大约20秒的时间。
4. 按下电源按钮退出并存储数据到存储器中。
   - 如果进入维修模式失败，重复上述步骤1和步骤2。
5. 初始化“维修模式显示”状态

* 如何进入到隐性工厂模式。

a. 进入到工厂模式

b. 移动箭头选择“高级”

c. 按键输入：0 + 0 + 0 + 0

** 隐藏菜单：高级

6. 在维修模式中的按钮操作

菜单	全部菜单显示/移动到主体菜单
方向键▲/▼	通过移动鼠标选择项目
方向键◄/►	所选项目增加/减少
来源	通过激活输入源，连接到本机，进行循环。

4-3-2 工厂数据

选项			
Factory Name	***Data***	***Range***	***Use***
Factory Reset			
Type		19A6TH0C/22P6TH0C/22I6TH0C/26P6AH0C/32P6AH0C/32A6AH0C/19I6TH0C/32D6AH0C/32A6AH1C/32L6AH0C	Select Panel Type ❶❷ : inch ❸ : vendor ❹ : refresh ❺ : POL ❻ : resolution ❼ : multi ❽ : BLU
Model	LD400	LD400/LD400_19/LD400_FHD	Select Model
TUNER	XUGUANG	XUGUANG/SEMCO	
Ch Table		SUWON/SESK/SEH/TTSEC/SEIN/SDMA/TSED/SAVINA/SIEL_C/SIEL_N/TSE	
Local Set	East Aisa	East Aisa/Africa/Vietnam/China/India/Iran/Israel/Middle Asia	Select Area
P&P Language		English/Thai/China/Vietnam/Indonisia	

ADC/白平衡

工厂菜单名称

ADC

ADC Target

ADC RESULT

WB

Factory Name	*Data*	*Range*	*Use*
ADC Target			
1st_AV_Low	17	0~255	
1st_AV_High	234	0~255	
1st_AV_Delta	3	0~255	
1st_COMP_Low	17	0~255	
1st_COMP_High	234	0~255	
1st_COMP_Delta	3	0~255	
1st_PC_Low	1	0~255	
1st_PC_High	235	0~255	
1st_PC_Delta	1	0~255	
2nd_Low	2	0~255	
2nd_High	235	0~255	
2nd_Delta	1	0~255	
ADC RESULT			
1st_AV_Gain	*134*	*0 ~ 255*	
1st_AV_Offset	*139*	*0 ~ 255*	
1st_Comp_Gain	*67*	*0 ~ 255*	
1st_Comp_Gain_Cb	*67*	*0 ~ 255*	
1st_Comp_Gain_Cr	*67*	*0 ~ 255*	
1st_Comp_Offset	*128*	*0 ~ 255*	
1st_Comp_Offset_Cb	*128*	*0 ~ 255*	
1st_Comp_Offset_Cr	*128*	*0 ~ 255*	
1st_PC_R_Gain	*94*	*0 ~ 255*	
1st_PC_G_Gain	*92*	*0 ~ 255*	
1st_PC_B_Gain	*91*	*0 ~ 255*	
1st_PC_R_Offset	*128*	*0 ~ 255*	
1st_PC_G_Offset	*128*	*0 ~ 255*	
1st_PC_B_Offset	*128*	*0 ~ 255*	
2nd_R_Offset	98	0 ~ 255	
2nd_G_Offset	98	0 ~ 255	
2nd_B_Offset	98	0 ~ 255	
2nd_R_Gain	165	0 ~ 255	
2nd_G_Gain	165	0 ~ 255	
2nd_B_Gain	165	0 ~ 255	

WB			
Sub Brightness	128	0 ~ 255	
Red Offset	133	0 ~ 255	
Green Offset	128	0 ~ 255	
Blue Offset	130	0 ~ 255	
Sub Contrast	135	0 ~ 255	
Red Gain	132	0 ~ 255	
Green Gain	128	0 ~ 255	
Blue Gain	136	0 ~ 255	

控制

工厂菜单名称

EDID

Sub Option

Shop Option

Test Pattern

Factory Name	***Data***	***Range***	***Use***
EDID			
EDID Protect	ON		Download EDID data to EEPROM. 1. Set "Off" of EDID Protect. 2. Go EDID Type. If 22",change to L12_1920_1080. If 19", 26", 32", change to L13_1366_768. 3. Go EDID WRITE and Push Enter or ▷ button. 4. If You See Success message, SET "OFF" of EDID ON/OFF
EDID Type	*L13_1366_768*		
EDID Write(0x4D,0)	*L13_1366_768*		
	Success		
Sub Option			
Inch	32"	19"/22"/23"/26"/27"/32"/37"/40"/42"/46"	Select Inch.
Dimm Type	EXT	fixed	Select Dimming Type. Initial value is "EXT"
Lvds Format	Default	Default/VESA	Select LVDS format. 19/22 inch : "VESA" 26/32 inch : "JEIDA"
Watchdog	ON	ON/OFF	Select Watchdog. Initial value is "ON"
USB Upgrade	Off	Off/ON	1. Connect the USB memory stick. 2. Change to ON of USB Upgrade. 3. Power Off an On. 4. LED of front will blink. 5. If upgrade complete, TV set will booting automatically.
Shop Option			
Shop Mode	OFF	ON/OFF	
Test Pattern			
Mstar Test Pattern	OFF	ON/OFF	
C_BER_1		Not modified	

SVC			
Factory Menu Name	*Data*	*Range*	*Use*
SCC	Off		
SCC Input Data			
SCC Source Data	PBA		
SWAP	PBA		
Panel Auto Setting			

4-4.白平衡-校准

4-4-1 白平衡-校准

1.校准 → AV 校准
Comp校准
PC 校准
HDMI 校准

4-5-2 白平衡-调节

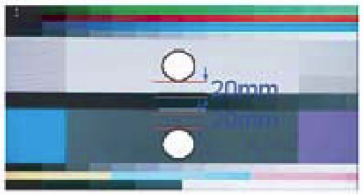
	（弱光）	（强光）
3.白平衡 →	次亮度	次对比度
	红色偏移	红色增益
	绿色偏移	绿色增益
	蓝色偏移	蓝色增益

（白平衡调节状况，请参照下页）

4-5．白色比（平衡）调节

1. 可以在工厂模式下调节白色比（1：校准，3：白平衡）。
2. 因为调节值和数据值随输入源而异，所以必须在 CVBS、分量 1 和 HDMI1 模式下调节。
3. 在默认设置下配置各模式的最佳值。（参照表 1、2）
   该项随显示屏尺寸和规格而异。

-设备：CS-210
-图案：MIK K-7256 #92“平白平衡图”，作为标准
-只有当与主设备的结果比较结果后，才可使用其他设备
-设置老化时间：60 分钟
-白平衡调节的校准和手动设置



HDMI：#24 方格图校准→用#92 图手动调节（720p）
COMP：#24 方格图校准→用#92 图手动调节（720p）
CVBS：#24 方格图校准→用#92 图手动调节（PAL）

-如果在 HDMI 模式下完成，调节座标几乎与 AV/COMP 模式下相同。
-白平衡手动调节

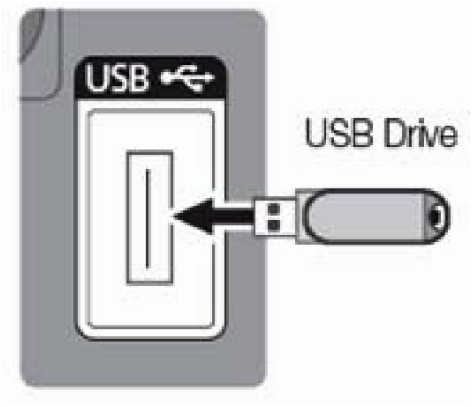
P-Mode	调节坐标				
		x	y	Y (Luminance)	T(K) + MPCD
CVBS (PAL)	H/L	272	278	- (Sub_CT:130)	12,000 (±0)
	L/L	272	278	12.6cd/m² (3.7 Ft)	12,000 (±0)
COMP (720P)	H/L	272	278	- (Sub_CT:130)	12,000 (±0)
	L/L	272	278	13.0cd/m² (3.8 Ft)	12,000 (±0)
HDMI (720P)	H/L	272	278	- (Sub_CT:130)	12,000 (±0)
	L/L	272	278	13.0cd/m² (3.8 Ft)	12,000 (±0)

- 调节规格
白平衡：高光（±1）、弱光(±3)
亮度：高光 (不要担心)，弱光(±0.2 Ft/L)

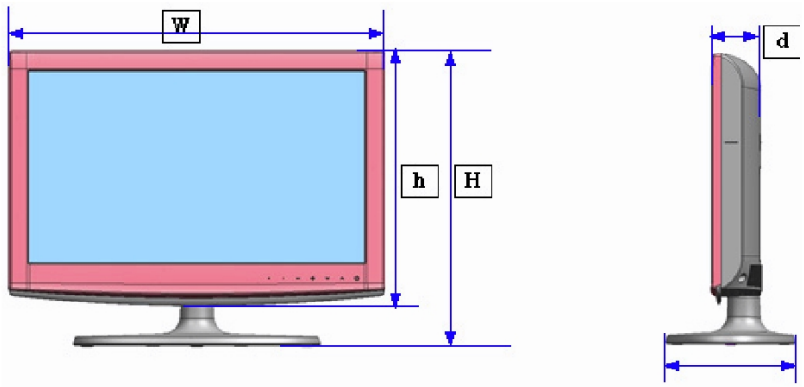
4-6.维修信息

4-6-1 USB 下载方法

1.插入包含固件升级的 USB 驱动器到电视后部或侧部的 USB 连接端口上。
2.进入工厂模式。
3.选择控制和子选项。
4.变更 USB 升级未开启状态。
5.关闭并开启电视。
6.前部的 LED 指示灯将会闪烁。
7.如果升级完成，电视将会自动启动。



4-8. 机械图

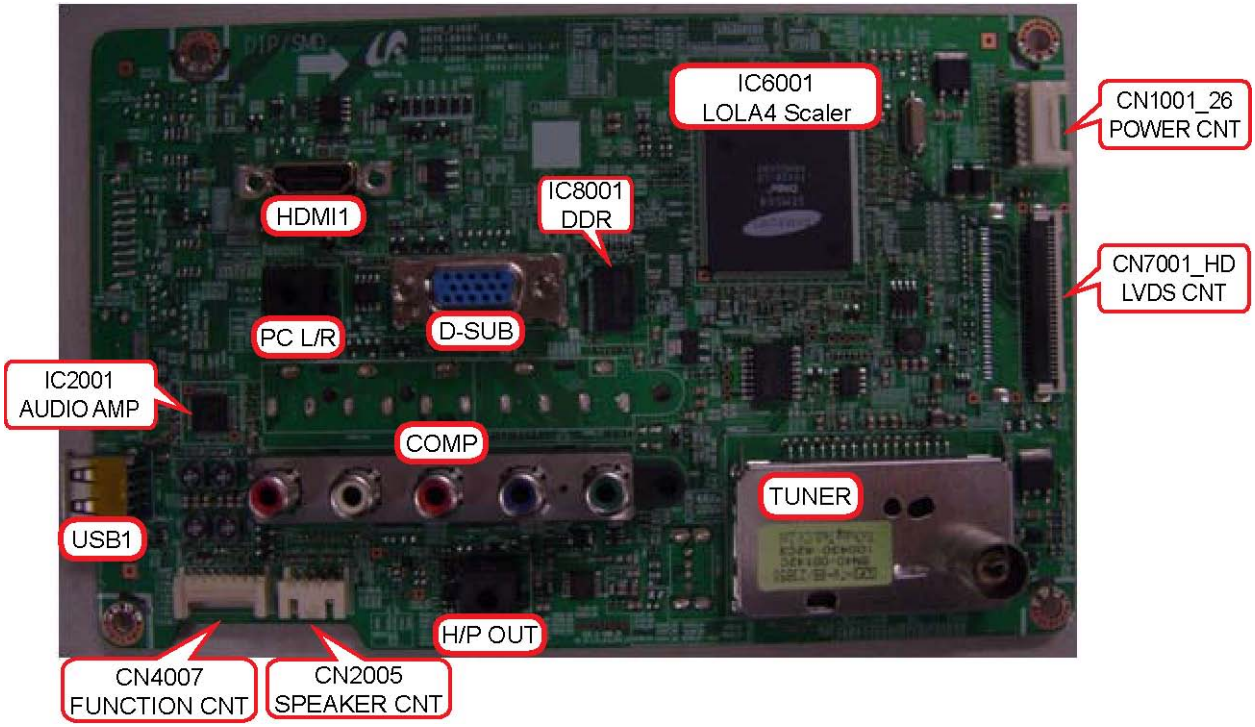


		32LD55*	37LD55*	40LD55*	46LD55*
		Plastic	Press	Press	Press
尺寸 [mm]	带底座 (W x D x H)	461.3x160.7x346.8	533.2x171.6x390.0	646.5x222.1x489.5	784.4x251.7x565.6
	不带底座 (W x D x H1)	461.3x61.2x299.7	533.2x62.2x344.2	646.5x78.8x421.3	784.4x78.8x502.8
重量 [Kg]	带底座	3.8	5.1	6.6	10.7
	不带底座	4	4.9	6.2	8.5

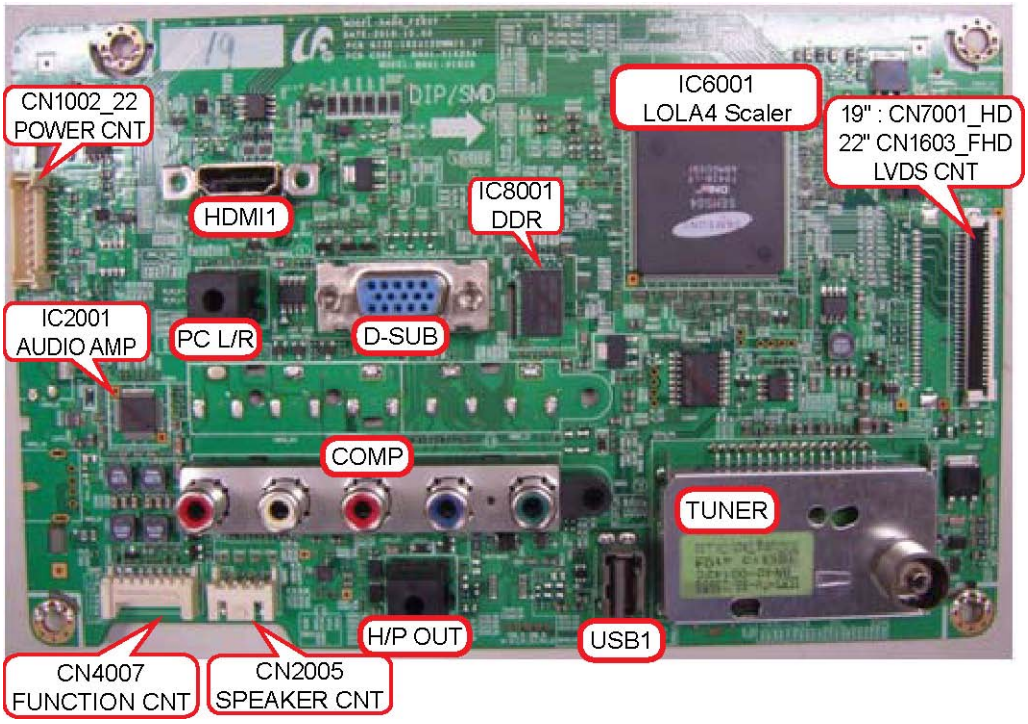
4-9. 印刷电路板图

■ 印刷电路板布局

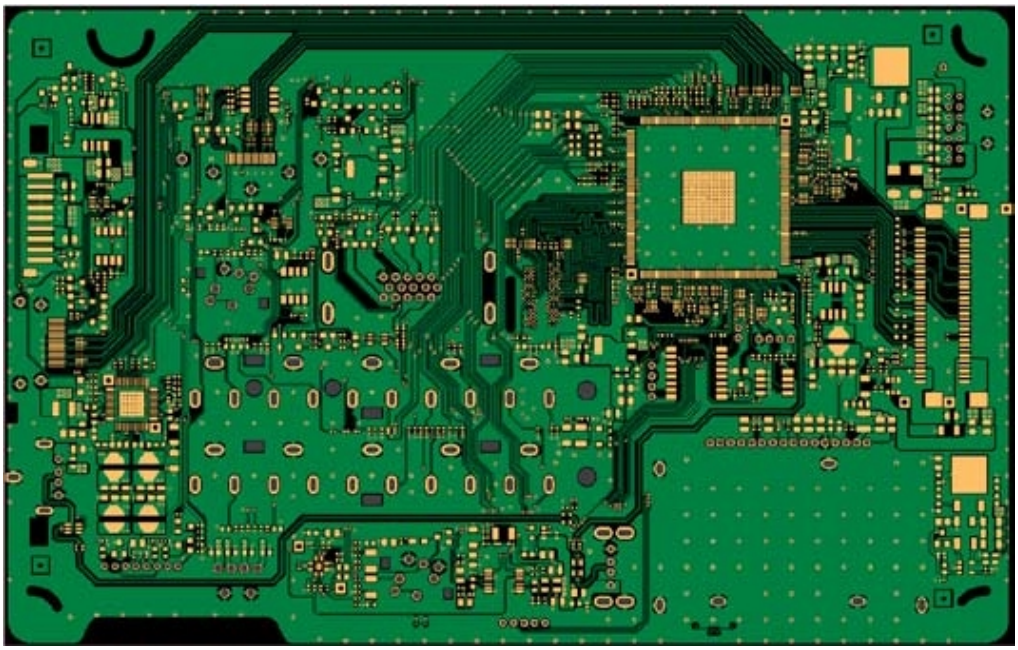
26"/32"



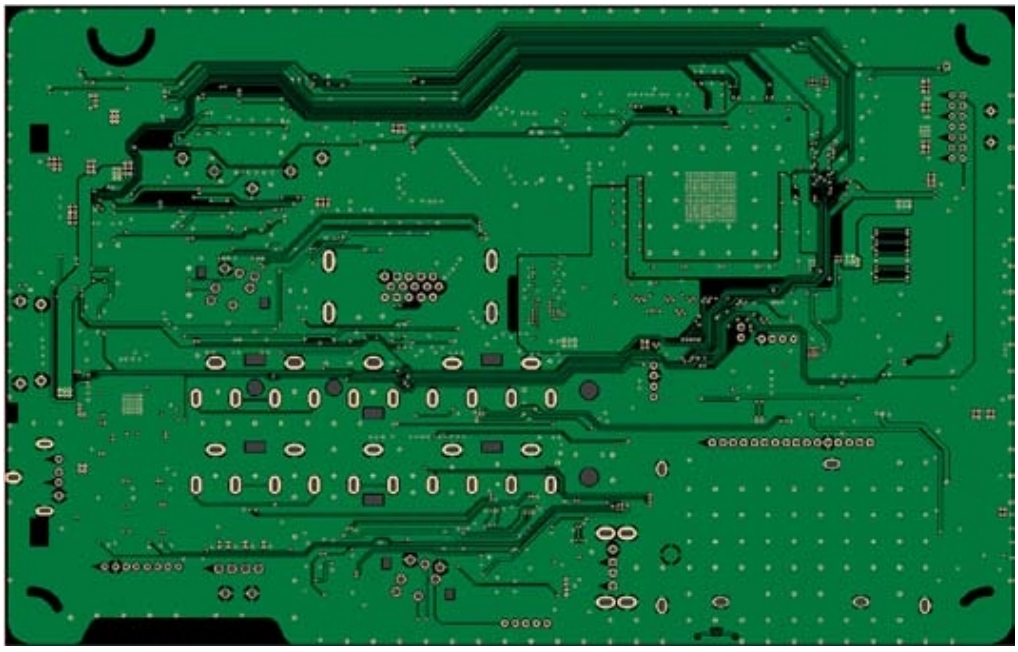
19"/22"



■ **主板顶部**

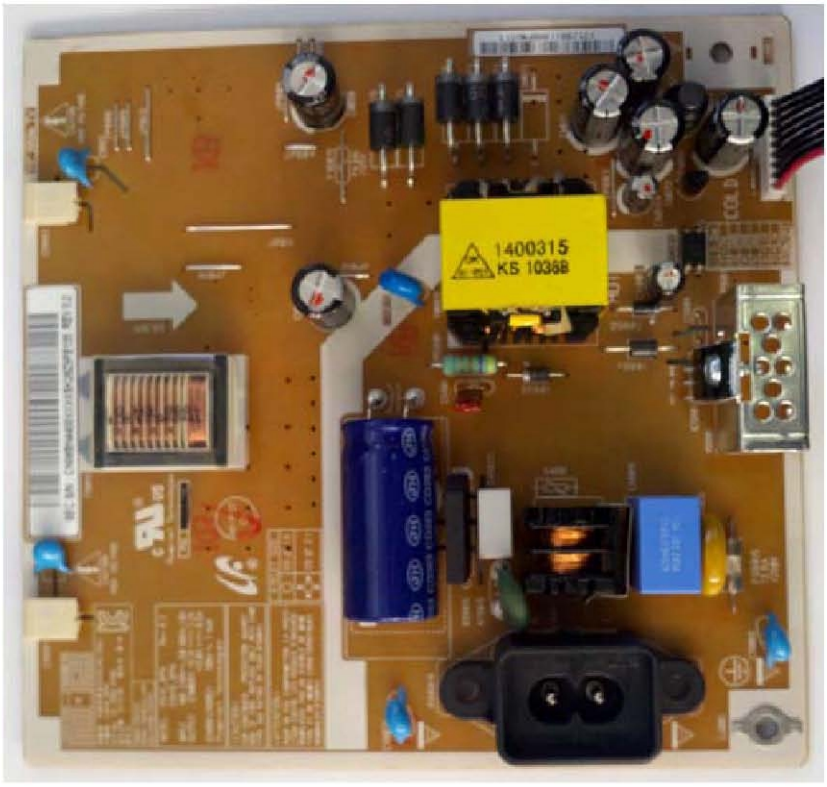


■ **主板底部**

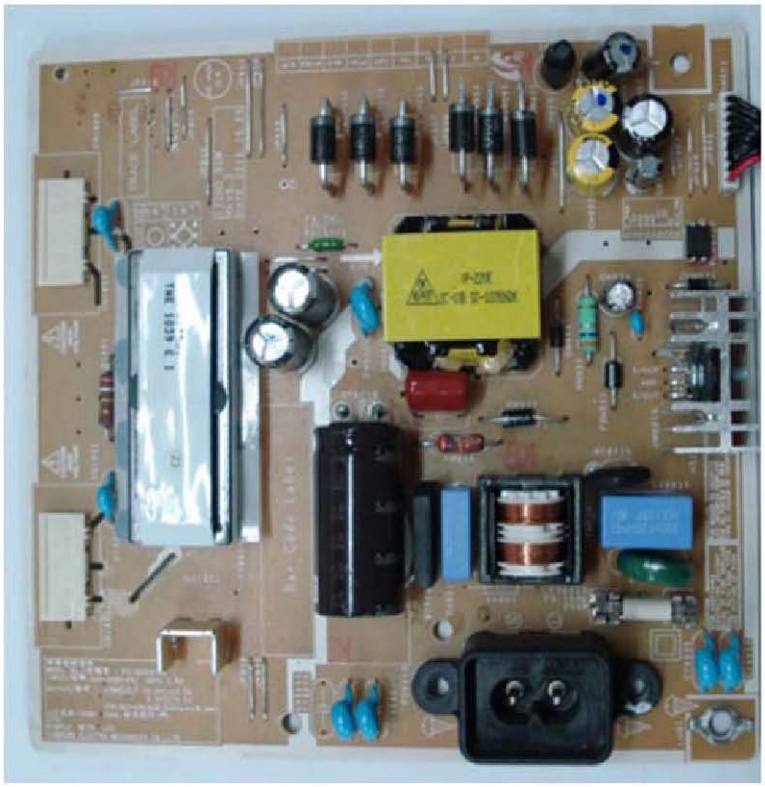


■ SMPS

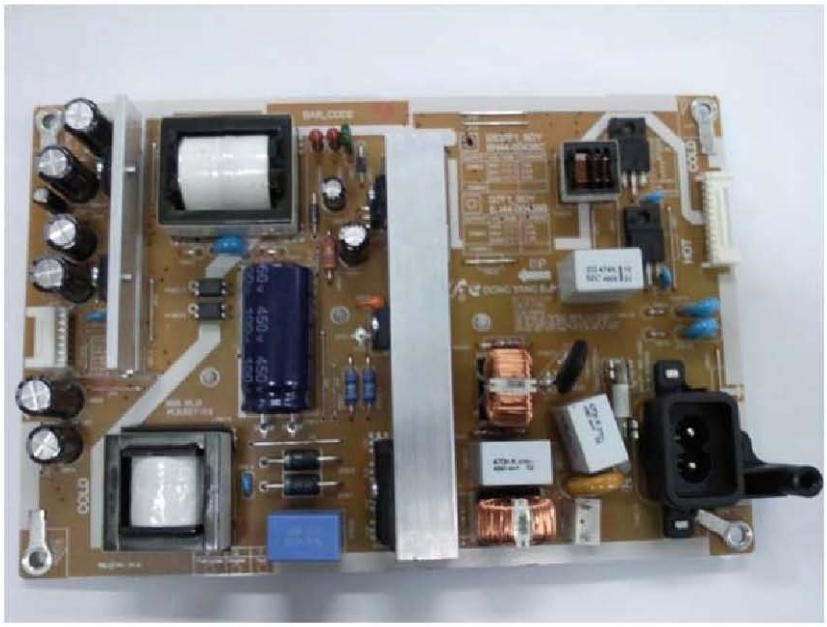
型号/英寸	代码	P/N
19"	BN44-00436A	I19HD_BPN



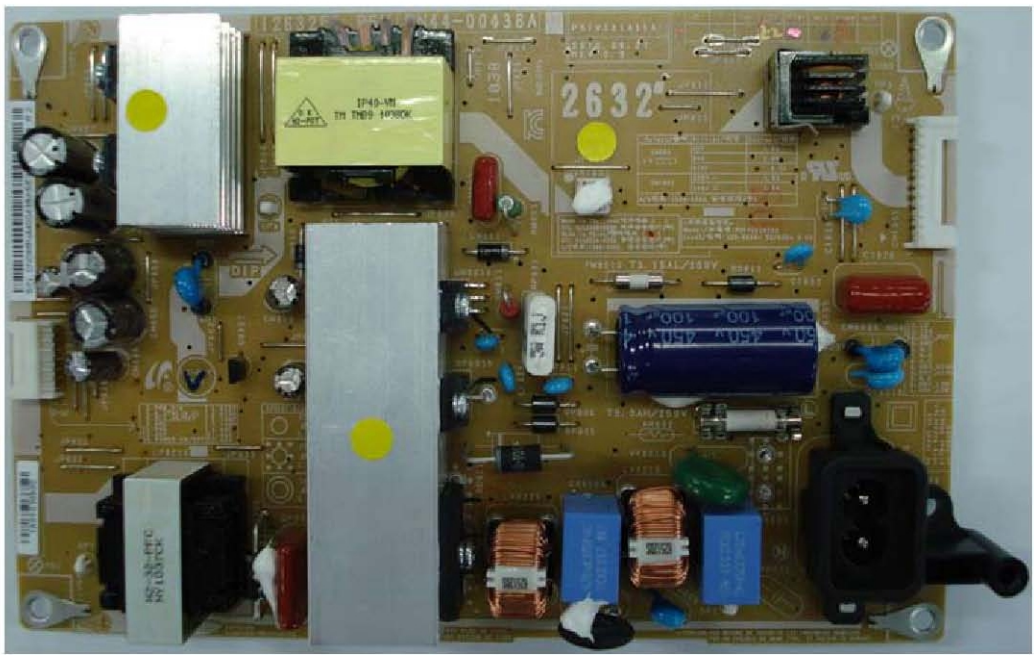
型号/英寸	代码	P/N
22"	BN44-00437A	I22HD_BSM



型号/英寸	代码	P/N
26"	BN44-00438C	I2632F1_BDY



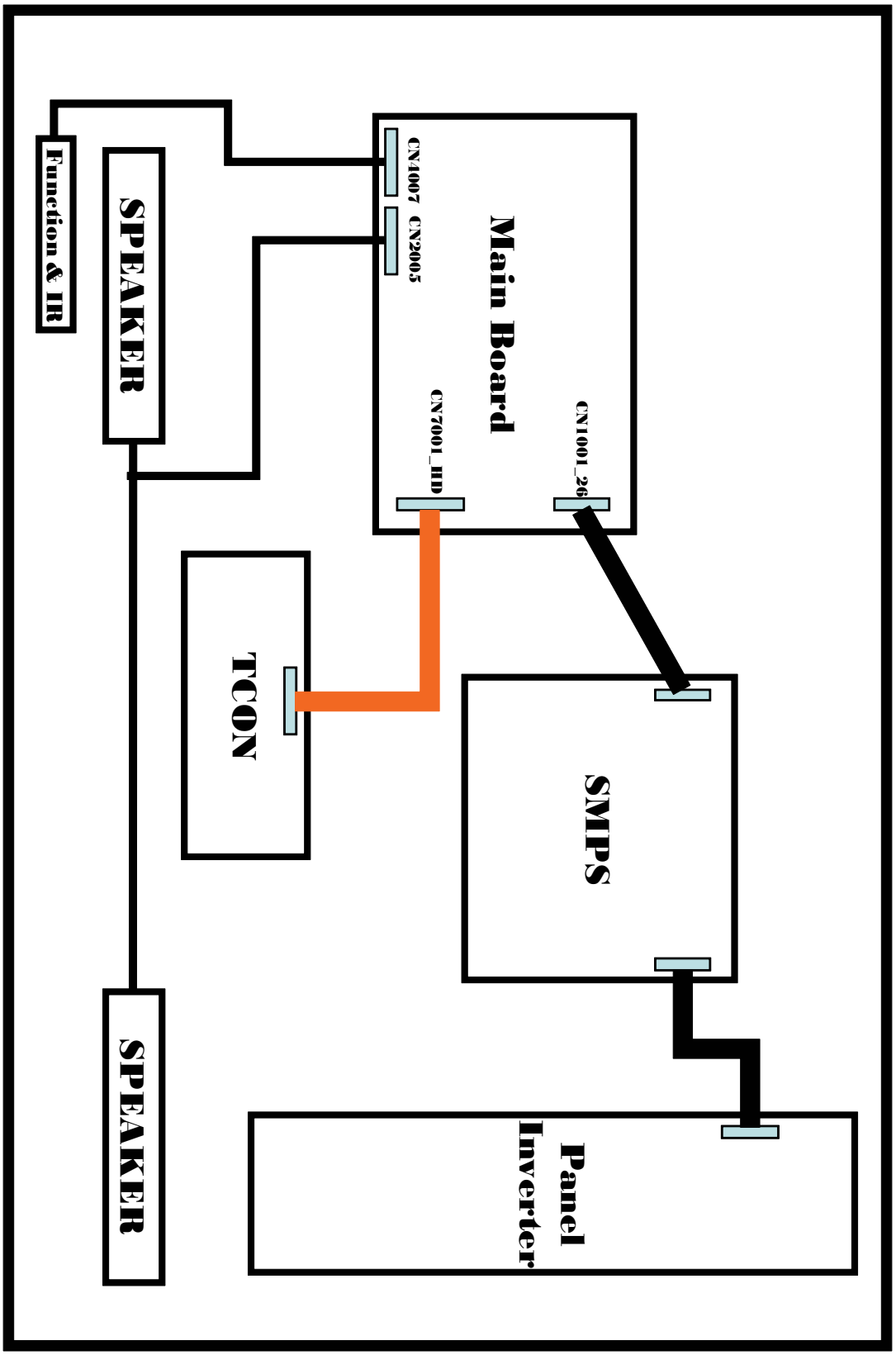
型号/英寸	代码	P/N
32"	BN44-00438A	I2632F1_BSM



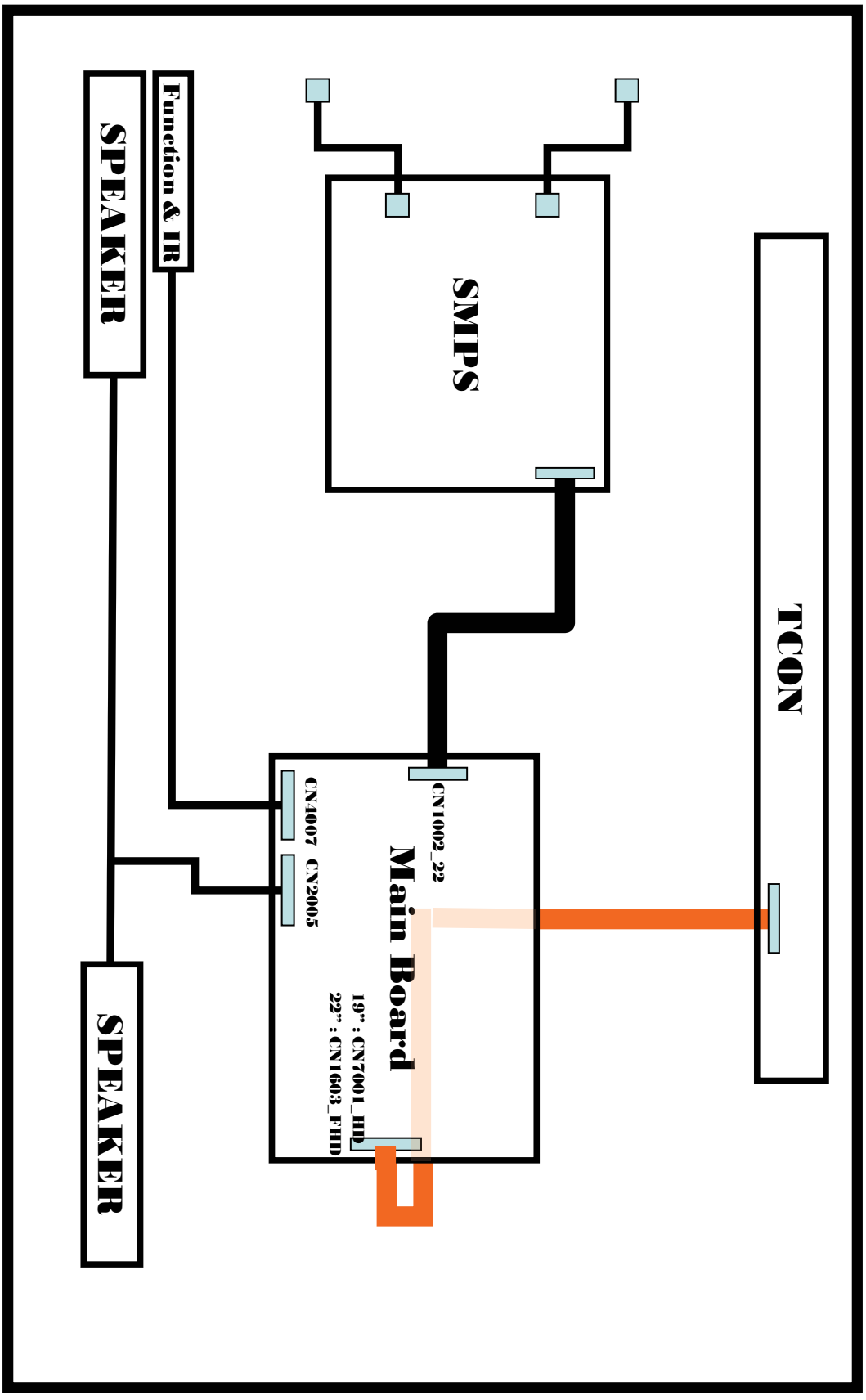
5. Wiring Diagram

5-1. Wiring Diagram

■ **26"/32"**



■ 19"/22"


SPEAKER
Function & IR
SMPS
TCON
CN1002_22
CN4007
CN2005
Main Board
19" : CN2001_HD
22" : CN1603_FHD
SPEAKER

5-2. Connector

■ 26"/32"

POWER IN (option by inch)			
19"/22" (CN1001_22)			
1	PWM_DIMMING	6	A5V
2	A13V	7	A5V
3	GND	8	A18V or NC
4	GND	9	SW_INVERTER
5	GND		
26"/32" (CN1001_26)			
1	B5V	8	GND
2	SW_POWER	9	B12VS
3	B5V	10	SW_INVERTER
4	A5V	11	B13V
5	GND	12	NC
6	GND	13	B13V
7	B12VS	14	PWM_DIMMING

LVDS OUT (option by inch)			
19"/26"/32" (CN7001_HD)			
1	Panel_VCC	16	ODDCLK+
2	Panel_VCC	17	ODDCLK-
3	Panel_VCC	18	GND
4	Panel_VCC	19	ODD[2]+
5	Panel_VCC	20	ODD[2]-
6	GND	21	GND
7	GND	22	ODD[1]+
8	GND	23	ODD[1]-
9	TCON_WP	24	GND
10	FORMAT	25	ODD[0]+
11	NC	26	ODD[0]-
12	GND	27	GND
13	ODD[3]+	28	SDA_TCON
14	ODD[3]-	29	SCL_TCON
15	GND	30	NC

LVDS OUT (option by inch)			
22" (CN1603_FHD)			
1	Panel_VCC	16	EVEN[1]-
2	Panel_VCC	17	GND
3	Panel_VCC	18	EVEN[0]+
4	NC	19	EVEN[0]-
5	NC	20	ODD[3]+
6	NC	21	ODD[3]-
7	GND	22	ODDCLK+
8	EVEN[3]+	23	ODDCLK-
9	EVEN[3]-	24	GND
10	EVENCLK+	25	ODD[2]+
11	EVENCLK-	26	ODD[2]-
12	EVEN[2]+	27	ODD[1]+
13	EVEN[2]-	28	ODD[1]-
14	GND	29	ODD[0]+
15	EVEN[1]+	30	ODD[0]-

FUNCTION (CN4007)			
1	IR	5	GND
2	GND	6	KEY_IN1
3	3.3V	7	KEY_IN2
4	GND	8	LED_STB

SPEAKER (CN2005)			
1	R+	3	L+
2	R-	4	L-

PC (CN401)			
1	PC_RED	9	PC_5V
2	PC_GREEN	10	IDENT_PC
3	PC_BLUE	11	R_FANET
4	T_FANET	12	DSDA
5	GND	13	PC_HS
6	GND	14	PC_VS
7	GND	15	DSCL
8	GND		

PC/DIV SOUND (CN450)			
1	GND	5	NC
2	PC_SR_IN	6	NC
3	PC_SL_IN	7	NC
4	NC		

USB (CN801~802)			
1	5V	3	USB_DP
2	USB_DM	4	GND

HEADPHONE/MONITOR OUT (CN2001)			
1	GND	5	NC
2	HP_R	6	GND
3	HP_L	7	IDENT_HP
4	GND		

HDMI (CN501/CN550)			
1	RX2+	11	GND
2	GND	12	RXCLK-
3	RX2-	13	HDMI_CEC
4	RX1+	14	NC
5	GND	15	SCL
6	RX1-	16	SDA
7	RX0+	17	GND
8	GND	18	5V / IDENT
9	RX0-	19	HPD
10	RXCLK+		

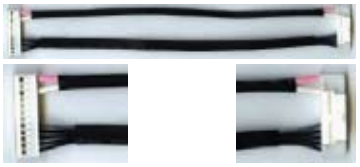
COMPONENT/AV (CN601)			
1	GND	9	COMP_PR
2	COMP_Y/AV_CVBS	10	GND
3	IDENT_AV	11	SL_IN
4	GND	12	SR_IN
5	COMP_PB	13	GND
6	IDENT_COMP	14	SR_IN
7	GND	15	SL_IN
8	COMP_PR		

TUNER (BN40-00142C)			
1	RF_AGC	9	NC
2	5V	10	SIF
3	GND	11	SCL
4	33V	12	SDA
5	GND	13	NC
6	NC	14	NC
7	NC	15	NC
8	CVBS		NC

5-3. Connector Functions

Connector	Functions
Main ⟷IP (14p)	Supply main power and dimming signal from IP board to Main Board.
Main ⟷T-CON (30p LVDS)	The LVDS signal transfered from Main Board to Panel .
IP ⟷Panel (12p)	Supply power from IP board to Driver Board.

5-4. Cables

Use	LEAD (Main-IP 14P)	LEAD (IP-Driver B'D 12P)
Code	D400 26 : BN39-01449E (125mm) D400 32" : BN39-01449A (200mm)	D400 26/32" : BN39-01448A (70mm)
Photo		
Use	**LVDS (Main - TCON)**	
Code	D400 26" : BN96-12469D D400 32" : BN96-13227A	D400 19" : BN96-12453D D400 22" : BN96-12447M
Photo